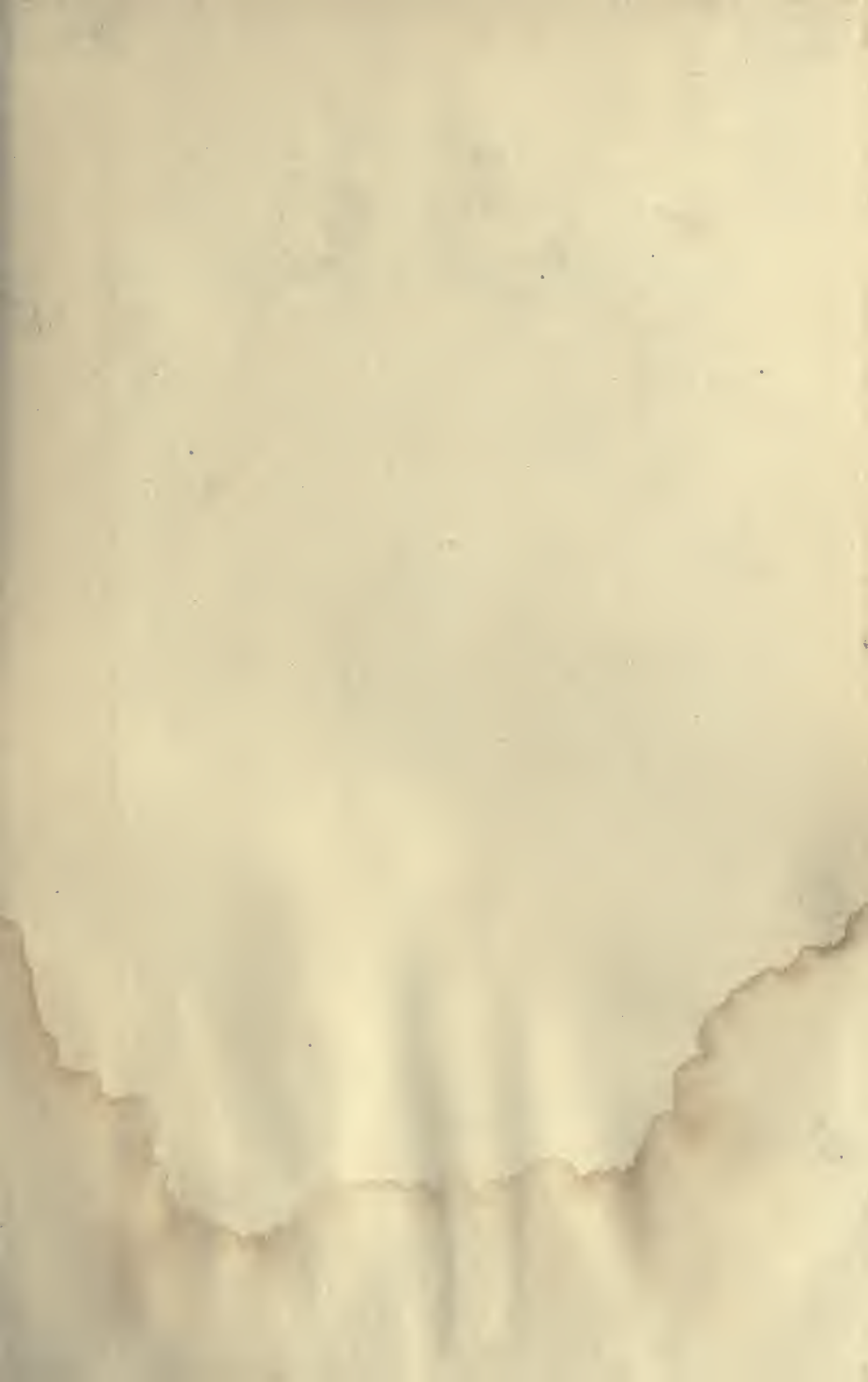






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A HISTORY
OF THE
MENTAL GROWTH OF MANKIND
IN
ANCIENT TIMES

BY
JOHN S. HITTELL

VOLUME I.
SAVAGISM



NEW YORK
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1893

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PREFACE.

A good record of the mental growth of mankind would comprehend all the highly important lessons of human experience, and would be the most valuable of all histories; but as it would be precious, so it is difficult of composition. Many authors have undertaken it; many others may undertake it before one produces a work worthy of the subject; and as failure may help to clear the track for success, I venture to offer my contribution in this matter to the public. According to my conception of the history of culture, it should give solutions to such queries as these:—

Is man the direct product of natural evolution or of supernatural creation? Are all men descendants of one primary human stock? Were the first men black, yellow, or white? In what part of the earth and in what geological period did they make their appearance? Is the intellectual development of man a necessary result of his nature in such an environment as that in which he exists and has existed in historical times? Has his progress been continuous? Has it shown itself in all the departments of life? Has it been governed exclusively by natural causes and uniform law? Has it always

been beneficent? What are its main branches? How has each of them advanced in different ages and countries? How has each of them affected the general welfare? Into what categories should we divide the mental growth of mankind for the purpose of getting the clearest and most correct conceptions of its advances?

What are the most important branches of industry? How did the arts of kindling fire, cooking and preserving food, chipping stone into edge tools, shaping spears, bows, and arrows, tanning leather, weaving cloth, burning pottery, plaiting baskets, building huts and boats, tilling land, domesticating herbivorous animals, smelting, casting, and forging metals,—how did these arts begin and advance? How did edge tools of stone, bronze, and iron become characteristic features of certain stages in human culture? How, when, and where did the great inventions have their origin and development, and what influence did they exert on human society? How, and to what extent, has the productive power of industry increased? Has the increase added to the comfort of man and to what extent? Has any one of the main branches of industry ever made much progress without stimulating many of the others? Do increasing wealth, abundant machinery, and cheap transportation contribute to the greatest good of the greatest number?

What were the social customs of the earliest times and how did they change into those of the present age? How did phrases of salutation and forms of obeisance

and prostration begin? Was dress first used for ornament, for comfort, or for the gratification of modesty and what changes has it undergone? What matrimonial system existed among the earliest men? Did promiscuity ever prevail extensively? When, where, and how did polygyny, polyandry, and monogamy begin and spread?

Is articulate speech of natural or supernatural origin? Were its first forms simple or complex? How have words been changed in length and in inflection? What relations do figurative bear to literal meanings, and abstract to concrete terms in the various conditions of speech? What are the main classes of language, and how have they arisen? What are the causes of simplicity and complexity in grammatical construction? How did the art of writing begin? How did it advance from signs for ideas to others for words, for syllables, and for letters? How did printing commence, and how has it grown?

How was education, by the aid of books, established? What are its main branches? How has it been affected by general progress? What nations have taken the lead in it? What places in it have been occupied in various centuries, by law, medicine, surgery, physical science, engineering, mathematics, metaphysical philosophy, theology, philology, history, ethnology, and ancient and modern literature?

When religion first appeared on the earth, was it a complete system of supernatural revelation, needing no

modification in creed or discipline to adapt it to the wants of men in all ages and countries? Or, like other branches of culture, did it appear at first in mere rudiments, and did it grow gradually into many complex and highly differentiated forms? How did low savages come to adopt the belief that the spirits of their relatives continue to live after the death of the body, with the same needs, passions, and occupations as in the corporeal life, demanding offerings to preserve their favor? How did this belief lead to the erection of shelters over graves, and to the construction of temples, to the establishment of periodical sacrifices, and to the installation and endowment of priests, and how did the divine ancestor of a family become the partial god of a tribe, and then of a nation, and finally the impartial god of all mankind? What are the main features of the leading religious systems of past and present times, and what are and have been their influences on mankind?

Have all men accepted the same ideas of ethical obligation? Have they believed that slavery, retaliation, despotic government, superior political privilege of a small class, torture, and religious persecution were right, and if various ethical theories have prevailed in different times and countries, have the differences been marked by continuous improvement? Have they been affected, and in what manner, by the changes in industrial and political conditions? Is our moral code the product of intuitive perception, or of experience guided by reason?

What nations have excelled in war, and how did they attain superiority? What influence have they exerted on the world? What were the main characteristics of their military systems? How has the military art been changed by the introduction of metallic weapons, gunpowder, and other developments in the industrial arts?

How did political organization begin and advance from the small group without a chief, to the tribe with a chief, to the kingdom with a hereditary sovereign, to the city with an aristocratic government, and to the nation which grants equal civil and political rights to all its adult male residents born on its soil? What have been the main steps in the development of constitutional, civil, criminal, international, and parliamentary law?

What have been the most important contributions to culture, and to what ages, continents, and races are we indebted for them? What do we owe to the Egyptians, Phoenicians, Chaldeans, Hindoos, Chinese, Greeks, Romans, Jews, Arabs, Italians, Frenchmen, Spaniards, Portuguese, Germans, Hollanders, Scandinavians, Slavs, English, Scotch, and Americans? What geographical conditions are most favorable to culture, and in what countries has it reached its highest developments?

Is it because of inherent capacity or of peculiar environment that different peoples have excelled in certain departments of culture? If, at the age of five years, a thousand Athenian boys had been adopted in Spartan families, trained in the Spartan system, and in every

manner treated as if they had been the children of their foster parents, would they have acquired the Spartan characteristics? If an equal number of Spartan boys had been brought up in Athens as the children of Athenian parents, would they have grown to be like the native Athenians? Is one Euraryan nationality more competent than the others, to excel, in either the fine arts, poetry, science, philosophy, industry, polity or war? Has the Celt any natural fitness for free government? Is he superior to the Teuton in delicacy of sentiment? Are the nations of Southern Europe superior to those of the North in artistic genius? Are those of the North superior in mental and physical energy?

To these questions, which have never been answered satisfactorily, I shall offer replies, which, however weak they may be in many points, will yet, I hope, contribute a little to the stock of historical truth. I shall try to throw light on human nature as it is, by showing something of what it has been,¹ and to trace in the remote past the origins of some of our present institutions.² I believe that continuous progress has prevailed throughout the past; and that the irrepressible progressiveness of humanity is one of the great facts, or laws in nature, deserving to be classed with the inherence of force in matter, the definiteness of chemical proportions, cosmic evolution, biological evolution, the conservation of energy, and the invaluable correlation of the physical and psychical forces.

I expect to follow up this book with other volumes in which the course of human progress will be traced down to the present time.

Besides giving information as full and correct as I can about my subject, I shall call attention to the ablest authors who have written about various branches of culture, and wherever I can find material suitable for my purpose, I shall quote their language for the purpose of enlivening my work with their brilliancy and stimulating the reader to examine their books.

Several words of my own coinage occur in this book; others used here are not defined clearly in the dictionaries, or are not accepted by uniform usage in the meanings in which I employ them, and it seems proper that I should give definitions in such cases.

I use culture only in the sense of the mental growth of mankind; culturestep from the German *kulturstufe*, as a grade of culture;³ and culture-historical from the German *kulturhistorisch* as relating to the history of culture.⁴

I divide culture into three main culturesteps,—savagism, barbarism, and civilization. Savagism is the condition of the North American Indians, the Australians, the natives of the Pacific Islands, and the negroes generally. They have not risen to city life and national organization. Barbarism is the condition of the Aztecs, Quichuans, ancient Egyptians, Phœnicians, Carthaginians, Persians, and Hindoos, the Chinese and the Mohammedan nations. They have cities and natural governments, but

lack a high intellectual life. Civilization is limited to the ancient Greeks, and Romans, and the modern Christian nations.

To the Aryans in Europe—that is the Celts, Greeks, Latins, Slavs, and Teutons—and their descendants in other parts of the world, I give the name Euraryans. The best word to comprehend productive toil of all kinds,—commerce, transportation of passengers and freight, banking, agriculture, mining, metallurgy, and manufactures,—is industry.⁵ Since the word polygamy means plural marriage, and may indicate the marriage of one woman to several men, or of several women to one man, polygyny is here preferred to signify a matrimonial system in which one husband has several wives.

JOHN S. HITTELL.

San Francisco, September 9, 1893.

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A HISTORY OF MANKIND.

Savagism.

CHAPTER I.

INTRODUCTION.

SECTION I. *Man's Antiquity*.—Man has existed on the earth certainly forty thousand and perhaps two hundred thousand years.¹ In the pleistocene era, when periods of subtropical warmth, continuing each for thousands of years, alternated with others of glacial cold in central Europe, he dwelt there. In the last of at least four warm interglacial periods of that era, the climate of the Northern Hemisphere was so mild that the vegetation in latitude 75° N. was about the same as that now found twenty degrees nearer to the equator; and the lion, the hippopotamus, the kaffir cat, the hyena, and many plants of subtropical character lived as far north as England. The woolly elephant or mammoth, the woolly rhinoceros and the sabre-toothed tiger were also there, but these animals, now extinct, may have been able to endure the severe winters of the northern temperate zone. The era or the last era of the subtropical mammals in northwestern Europe was followed by the reappearance of the great ice sheet, at which time the land there had a con-

siderably higher elevation than now ; and then the land sank, the climate became milder and the ice melted, but the elephant, the hippopotamus, the rhinoceros, the lion, and the tiger did not return. Another subsidence of the land occurred and in the midst of this era, man, with polished stone tools and presumably with tillage, made his appearance. Again the land in England rose, this time to an elevation about fifty feet above its present level, and numerous small glaciers appeared in the British and Scandinavian mountains. Still later the land sank to thirty feet below its present level, and then Europe took its present shape, but this occurred so long before our time that no record or tradition of the changes in the form and area of the continent has been preserved among its people.

Geikie, Croll, Lyell, and other learned and able scholars who have written about the antiquity of mankind, believe that our species has existed on the earth at least two hundred thousand years. Some authorities who have investigated the history of oriental nations tell us that presumably not more than fifteen thousand and perhaps not more than ten thousand years have elapsed since the introduction of bronze tools began to lift men from savagism into barbarism. Not three thousand years have passed since some of the Greek states emerged from barbarism into civilization. All mankind spent perhaps one hundred and eighty thousand years in savagism ; and during part of the last twenty thousand years, a small proportion of our race has been in higher conditions of culture. The development of tilling from non-tilling culture was an achievement of greater difficulty and demanded more time than that of barbarism from savagism.

The earliest traces of men have been found in Europe and North America, because in those continents there has been the greatest amount of mining and excavation, under the inspection of highly educated men; but it does not follow that the earliest men lived in those continents. On the contrary, there is reason to believe that the human race first appeared in the torrid portions of Africa or Malaysia,² where the black race, the nearest human relatives of the highest brutes, the anthropoid apes—and presumably older than the more highly developed yellow and white races, are indigenous. Reasoning from the changes observed in later ages, we infer that these primitive black men were smaller in body and brain, and more ape-like in their forms and faces, than the Africans of modern times.

Of the men who lived more than twenty thousand years ago, it may be said that we know nothing save that they lived and had edge-tools of stone. We find their bones, their arrowheads, their flint knives or scrapers, and the marks of their tools or weapons on fossil wood or bone, and very little more. These remains furnish much material for remark to the archæologist, but little for the historian.

All men belong to one species. All races of humanity are indefinitely fertile in their crosses with one another. In all tribes and nations and in all stages of culture, man has the same general features of physical form and mental character. He has the same number of pulse beats and of inhalations in a minute, the same average temperature, the same wants, the same passions.³ In his most primitive condition he contained the potentialities of speech, industry, society, polity and religion, as they now appear. He was a struggling, toiling, reasoning animal,

with a capacity for and an irresistible impulse towards continuous and unlimited mental progress. He was so constituted that he could enjoy keen pleasures and endure bitter sorrows; that his days should be fringed with smiles and tears; that life should be dear to him; and that his attachment to it should increase as his generations multiplied.

By his physical and intellectual qualities, man is enabled to obtain his food, to preserve his life, and to make his permanent home in every zone, and in every continent. He can live where ether boils and where mercury freezes in the open air. The land animals, the birds, the aquatic mammals, and the fishes of every zone furnish food nutritious to him. He can reach all parts of the earth's surface save those within a few degrees of the poles. He dominates over the globe, occupies most of it, and it is by his sufferance that many of the other occupants are permitted to live.

SEC. 2. *Simian Relations*.—The negro's skeleton is relatively heavier than that of the white man; his skull is thicker, and sometimes in Dahomy has no sutures.¹ In fighting, black men often butt each other like rams, and they break a stick over the head rather than over the knee. The swords of the Spaniards were often broken on the heads of the aborigines in Jamaica.² The Australians break sticks over their heads,³ and they have duels, in which the combatants exchange alternate blows on the head with stout clubs, each standing still in his turn to give his enemy a fair chance, until one is stunned. Every blow would disable if not kill a European. The tibia and fibula in the shin are sometimes united into one bone through their whole length in the black and more rarely in the yellow man, as they always are in the

ape, *Simia troglodytes*. The arch of the negro's instep is low and his foot flat, resembling the foot of the ape and suggesting the exaggeration of the burlesque song, "The hollow of his foot makes a hole in the ground." His heel projects more than the white man's, so that he needs a different shoe.⁴ Often when standing, instead of throwing his weight squarely on his flat sole, he rests on the outer edges of his feet, as do the large apes.⁵ The sesamoid bones at the joints of the thumb and great toe are found rarely in Europeans and often in negroes.⁶

The legs are shorter relatively in the savage than in the civilized man;⁷ and in the African the lower arm and hand are longer. When standing upright he can touch his knee-cap with the point of his middle finger, while the white man cannot come within two inches of it.⁸ In the civilized man the tibia is round; in many savages, including Michigan mound-builders⁹ and European cave dwellers,¹⁰ it is flat or platecnymic. The perforation of the lower end of the humerus for the passage of the great nerve is found in all the quadrumana, in one-third of the Europeans of the reindeer period, and in one per cent. of the modern Europeans.¹¹

While the finger bones are longer in the negro, the fingers down to the separation between them are shorter, the flesh or skin extending farther from the knuckles,¹² and one of the most strongly marked lines of the European hand, that of the last three fingers, is wanting in the blacks, and is slightly marked in the yellow and red men.¹³

In the narrowness of the pelvis¹⁴ and in the breadth and arched form of the chest, the negro occupies an intermediate position between the white man and the ape.¹⁵ A comparison of the profiles of the heads of different races

shows that in prognathism or projection of the lower part of the face, the black man is nearest to, and the white man farthest from the ape, with the yellow in the intermediate position. Flatness of nose and projection of teeth accompany general prognathism. The negro's occiput, instead of projecting beyond his thick neck, is on a line with it, and the same peculiarity is found in some Polynesians. The flat nasal bones are ossified with the adjacent bones in some Africans as they are in apes.¹⁶

The women of the Bushmen tribe have a remarkable development of fat on the hips which in some cases projects out backwards six inches or more, with a nearly even horizontal upper surface. This hump,—of which engravings may be found in many scientific works, from drawings of the woman who attracted great attention at Paris in the last century as “the Hottentot Venus,”—has its counterpart in some of the female apes.¹⁷

Negroes and Australians have little calf on the leg, and anatomists say that the calf is one of the peculiar features of humanity. One of the most remarkable peculiarities of the black men, is the woolly character of the hair. Instead of being long and straight, or curly, as in white men, it is either short or kinky. In many tribes it does not exceed three inches in length, and gathers in little rope-like twists about a third of an inch in diameter. In the Hottentots, Bushmen and Papuans, the hair grows in tufts with intervening bare patches of scalp, and instead of gradually diminishing in length and thickness of growth on the temples and neck, as in the white man, it ceases abruptly, suggesting to the inexperienced European observer, the idea that it must be a wig.¹⁸

In many tribes, the women are more muscular than the men. They carry heavier burdens, and can swim

farther.¹⁹ They are accustomed to steady toil, while the men are not. And yet, in consequence of very early marriages and the custom of suckling their children for at least three years, with occasional subjection to excessive fatigue and insufficient food supply, they are wrinkled before they reach twenty-five. In several tropical countries, they cease to bear children before they have reached that age.²⁰ With rare exceptions, they have neither finely-shaped features nor charming expression; and the roundness of youth disappears before they are out of their teens. The beauty of the mature woman is a product of civilization. In certain tribes nearly all the children are born at one season of the year, as in many species of brutes.

These physical variations between savages and civilized men are, nearly all, caused by differences in culture. They are results of intellectual development accompanied by different modes of life, and as such must be considered as belonging to the history of the mental growth of the species.

SEC. 3. *Size, etc.*—The primitive negroes were probably smaller than modern savages, who generally are smaller than civilized men. The average height of the Dokos, Akkas and Abongos is four feet and one inch; of the Bushmen four feet and a half; of the Veddahs and Andamanese, less than five feet; and of the Brazilian Indians, the Aleuts, the Eskimos and some savage tribes of Northern Asia, less than five feet four inches.¹ The prehistoric cave dwellers of Europe were small, and the hilt of the swords of the bronze age are too short for the modern European hand.

The savage has relatively a larger alimentary system than the civilized man, and can eat more at a meal.

The Bushmen have "powers of stomach similar to beasts of prey, both in voracity and in the power of supporting hunger."² A Yakoot or a Tungoos can devour forty pounds of meat in a day.³ Wonderful stories are told of the capacity of stomach in Comanches, Eskimoes, and Australians.⁴ Though the savage is tough and under great stimulus can travel fast and far, he dislikes steady toil and is, perhaps, unfitted for it by the irregularity of his food supply if not by the character of his digestive system or of his mind. After gorging himself he wants a prolonged period of rest. The Hottentots have been described as "the laziest people under the sun."⁵ In consequence of irregularity in exertion, the Bushmen are usually suffering with famine or stuffing themselves with a feast.⁶ The Bhils "will half starve rather than work."⁷ The Kirghiz are exemplary idlers.⁸ The North American Indians hate and despise regular work of every kind. They act as if they had inherited a constitutional unfitness for steady toil.

SEC. 4. *Acute Senses*.—In acuteness of sight, hearing, and smell, the savages approach the brutes. The North American Indian can see objects at a distance as distinctly with the naked eye as a white man can with an opera glass. There are tribes in which every individual can recognize, by its odor, the ownership of an article of clothing recently worn by any intimate acquaintance. When meeting a stranger they want to smell him¹ as an aid to identification. They can discover the approach of a white man in the dark by his odor, which is offensive to them as it is to their horses and dogs. Some tribes can distinguish the sexes by the smell.² Savages dislike odors imperceptible to the average white nostril, and they like or are indifferent to some such as that of

the stoat, very offensive to the civilized olfactories. Many of the favorite perfumes of the black and red man fill the European with repugnance. To most savages putrid meats and vegetables and unwashed intestines of animals are not rendered unwelcome as food by their odor.³

SEC. 5. *Vitality*.—In the toughness of his vitality, the savage resembles a brute. The healing power of nature is stronger in him than in the civilized man. A severe bullet wound that would immediately prostrate a white man, and prove fatal to him, despite the best surgical care, will not prevent a Redman from keeping on his horse to ride thirty or forty miles and finally recovering without the aid of a surgeon.¹ An Australian had his skull fractured to the length of three inches on the temple by a blow which entirely severed the temporal artery, and yet the next day he took an active part in a public gathering. Another Australian had the ulna and radius of one arm shattered so that the splinters of bone were driven down into his hand, and yet his wound healed without bandage or operation, and notwithstanding the fact that many maggots had made their appearance on its surface.² In Abyssinia death seldom ensues when a hand or foot is cut off in the punishment of crime.³ Moors, Arabs, Malays, and Redmen recover from wounds that would be fatal to Europeans.⁴ Savage women in Africa, in the Pacific Islands and in both Americas give birth to children with little pain, and with very brief interruption, usually of not more than an hour or two, to their ordinary occupations.

Of the relative insensibility of savages to pain, we shall find many proofs in the sections relating to their tattooings, cicatrizations and ceremonies of initiation into

the classes of adults, warriors and priests. Monteiro observed in Angola that negroes suffered little pain from large wounds, and that their systems felt no such shock as do those of whites from severe amputations.⁵ Moseley says "negroes are void of sensibility to a surprising degree. They are not subject to nervous diseases. They sleep soundly in every disease, nor does any mental disturbance ever keep them awake. They bear chirurgical operations much better than white people; and what would be the cause of insupportable pain to a white man a negro would almost disregard."⁶

Savages are also relatively insensible to the discomforts of cold. The Fuegian when nearly naked seemed almost indifferent to sleet, while Cook's sailors, with all their clothing, were suffering intensely. The Yakoot can sleep without injury while the frost forms on his naked legs; and the North American Indian does not need one-fourth as much clothing as does his white neighbor in the winter of Dakota. The red children of that region go naked in cold weather, a practice which would soon be fatal to white boys and girls of the same age.⁷ The Bushman has little feeling for changes of temperature, and the Abipone is "extremely tolerant of the inclemencies of the sky."⁸

The colored races are less susceptible than white people to various forms of malarious disease. In the Gulf States east of the Mississippi, pure negroes seldom die of yellow fever; the larger the proportion of white blood in the mixed breed, the greater the mortality from that epidemic. The dark hill tribes of Hindostan suffer less with malaria than do the Europeans in the same region. Gout, apoplexy and dropsy were unknown among the aborigines of Lower California.⁹

SEC. 6. *Habits*.—Some savage habits, unknown to civilization, may deserve mention here. The Hottentots and Bushmen sleep on their sides with the knees touching the breast, and the calf touching the thigh; and the Australian sleeps rolled up like a hedgehog.¹ The Polyynesians generally, the Malays and some Africans, as well as the poorer Chinamen frequently rest by sitting on their haunches, with all their weight on their feet.² In the Soudan and other parts of Africa a man may sometimes be seen resting while standing erect, with one foot on the other leg above the knee, steadying himself with his spear.³ In the midst of a tiresome march, the Aymara prepares himself for continuing his journey by standing for a few minutes on his head.⁴

SEC. 7. *Savagism Disappearing*.—Savagism is diminishing rapidly in its numbers and area; and at the end of the next century will probably have few living representatives. Since 1500 A. D., many tribes have died out; many have greatly decreased, and none have gained much in number. The rapid diminution has been observed under the dominion of the Spanish, Portuguese, French, English, Russian, American and aboriginal governments; under the Catholic, Protestant, Greek and heathen religions; under civil, military and sacerdotal rule; in tropical, temperate and frigid climes; in Polynesia, Micronesia, Melanesia, Australia, Tasmania, the Aleutian Islands, the United States, Canada, South America, the Antilles, and Africa.¹ The last aboriginal Cuban died in 1700;² the last Tasmanian in 1869;³ the last of many tribes once numerous east of the Mississippi in unrecorded years. There are not now one-twentieth as many Redmen in the United States as there were three centuries since.⁴ Cook estimated the

number of the Hawaiians about 1775 at four hundred thousand, and now the census shows about forty thousand. The Tahitian islands had sixteen thousand inhabitants in 1797 and have now six thousand.⁵ In 1820 the Mariana group had twenty thousand; in 1880 not two thousand.⁶ Lavavai had one thousand two hundred in 1822 and in 1830 only one hundred and twenty. In 1822 there were twenty thousand Indians at the missions of California, and the descendants of those people pure in their blood, do not now number one thousand, and their descendants of mixed blood are few.

The main causes of the decrease are the inability of the savages to adopt a civilized mode of life, the diminution of their food supplies, their inability to restrain their longing for intoxicating liquors, the introduction among them of new diseases, their disastrous wars with the more numerous white men, and their expulsion from their ancestral homes by advancing civilization. Nowhere has a considerable community, savage three centuries since, risen without admixture with white blood, to a culture of unquestionable civilization. Large areas occupied exclusively by savages in 1500 are now occupied exclusively by civilized white men, and other such areas are under the dominating control of the Europeans.

In the early part of the last century, the buffalo ranged over one million five hundred thousand square miles of North America, and was the chief reliance of three hundred thousand Redmen for their food, clothing, bedding, and tent covering. The total number of these animals was presumably not less than eight million or ten million, so that two million could die annually without diminution of the stock. Those immense herds have now disappeared,⁷ as a source of food. Under the influence of fire

arms and of the high prices offered for pelts, many large animals, including deer, antelope, elk and moose, have entirely disappeared from extensive regions now occupied by white men, and have greatly diminished in regions still inhabited exclusively by Redmen. Under the demand for the oil and skin of seals, and for the ivory of walruses, those aquatic mammals have been greatly reduced in numbers, and the Eskimos are thus deprived of their previous supply of food. The Indians on the banks of the Columbia and Fraser have been deprived by white fisheries, of much of the salmon which formerly ascended to the upper portions of those rivers.

Various contagious and infectious diseases previously unknown to the aboriginal Americans and Pacific Islanders, were introduced among them by the Europeans. The smallpox swept away entire tribes, and the measles proved fatal to many. Forms of throat disease previously unknown or unimportant became widely destructive in Polynesia after the people began to wear clothes. While under the control of the Franciscan friars, the Mission Indians of California diminished rapidly; and those Indians taken while children as servants into American families in California, generally died of consumption before reaching the age of thirty.

Wherever civilized settlers have established themselves in savage territory, the aborigines have been driven back and in many cases have been expelled by force from their ancestral homes. War, the practically unavoidable accompaniment of the spread of civilization, was in many cases provoked much more by the savages than by the civilized men, and the general result has been beneficial to mankind.⁸

SEC. 8. *Savage History*.—As a necessary result of the

character of the material, a large part of this volume will be a description of the arts and institutions of different tribes, with little information about the circumstances of their development. In savagism, progress is so slow and so hidden from observation, that we must learn its growth only by comparison of the various conditions, successive in culture, not in the same territory, but in different countries. It has not been given to any one political organization to march, in the plain view of history, through all grades of past progress, nor to be its leading exponent for many ages. As compared with the long existence of humanity, nations generally have short lives. They strut for a few years on the scene and then make their exit, to appear no more forever. A Celtic, a Roman, and a Teutonic Gaul have occupied the territory and contributed to the population of modern France. A Numidian, a Carthaginian, a Roman, a Vandal, and a Mohammedan state ruled successively before the French established their present dominion in Algiers. In Egypt, Judea, Greece, Italy, Spain, Germany, England, Russia, and Hindostan, we find revolution after revolution. Among peoples in the lower culture-steps, generally, the warfare is more bitter and continuous, the military organization less compact, and the political community smaller. Such influences are unfavorable to the long duration of tribal life, and to the production of many grades of culture in any one nationality; and they render it impossible to trace much mental growth in any one savage community.

Every savage tribe has remained through its whole known career, in the same or nearly the same culture-step. If it had no tillage when first observed by white men, then it has not adopted tillage yet. If it had no

slaves, then it has no slaves yet. No tribe has a tradition of inventing or adopting pottery, weaving, or sail canoes. Such improvements were made in the past, but at a time so remote that the memory of their first introduction has been lost. The Australians, Kaffirs, and Redmen of North America, after being familiar for generations with civilized arts, are still savages.

The account of the manners and customs of savages at the beginning of a history of mankind may be properly historical, though it does not trace distinctly the development of the higher from the lower conditions. It is sufficient to show how one tribe lived on wild plants and animals; and how another obtained some of its food from land tilled by women; and how still another had large stocks of food grown with the help of slaves; and how one of these forms followed another in the natural course of progress. Of the advance of humanity before the time of written records, we must form our conceptions, to a large extent, by inferences from later conditions. Such inferences, though very different from the proofs obtainable for most of the facts in civilized culture, are safe guides when used with knowledge and judgment, and are indispensable aids in searching for light upon the childhood of humanity.

In the accounts given here of the savages and their culture, the present tense will be used for convenience of expression even in reference to tribes which, in modern times, have died out or have abandoned the arts, customs, and ideas of their forefathers.

CHAPTER II.

ETHNOLOGY.

SECTION 9. *Races*.—Men may be divided into three main races, the black, the yellow, and the white.

The black race, in physical organization nearest to the ape, and in mental capacity the lowest, numbers perhaps two hundred and fifty million persons, and occupies Australia, Melanesia, most of Africa, and a small part of Asia. Most of the blacks are in the torrid zone, and more than any other, they are a tropical race. They have never produced a great inventor, merchant, statesman, conqueror, orator, author, or religious teacher, nor built a splendid city, nor maintained a durable government over millions of people, nor made an important contribution to progress in historical times. The negroes and Congoese, ever since they became known to white men, have been recognized as the fittest of all families for bondage, and have furnished most of the material for the slave trade. Too lazy to apply themselves steadily to labor without compulsion, too stupid to form powerful military organizations, and too spiritless to make stubborn resistance to oppression, they have in all ages submitted to servitude.

The yellow race, in physical organization between the black and the white races, numbers perhaps six hundred million persons, and occupies eastern and northern Asia, both Americas, the Malay archipelago, Polynesia, Micronesia, and Madagascar. It is found in the torrid, temperate, and frigid zones. Most of the yellow men are barbarous, many are savage, none are civilized.

The white race numbers perhaps five hundred and fifty million persons, and includes the Hindoos, Persians, Afghans, Belooches, Armenians, Georgians, Circassians, Slavonians, Celts, Greeks, Latins and Teutons, who are classed together as Aryans, and the Hebrews, Arabs, Assyrians, Babylonians, Phœnicians, Carthaginians, Copts, Fellahs, Abyssinians and Berbers, who are classed together as Semites. The white men belong to the temperate zone and all civilization belongs to them, but not all of them are civilized.

Besides races of different colors, mankind is divided into archæological classes of the prehistoric and the historic. The prehistoric savages of most interest to us are the pleistocene European cave dwellers and drift men, the Danish shell-mounders, the Swiss pile dwellers, who may have belonged to the white race, and the Aleutian echinus-eaters, who were yellow.

Although geographical circumstances have great influence on the progress of civilized communities, they have relatively little on tribes in low conditions of culture. The small and isolated group of the Tahitian Islands with only six hundred square miles of area in the tropics, without an indigenous cereal or quadruped, was the home of the highest development of modern savagism, and decidedly superior to Samoa, Tonga, and New Zealand, each of which had a greater area, larger popula-

tion, and greater natural resources in charge of the same Polynesian race.

SEC. 10. *Australians, etc.*—The black race is divided into the Australian, Melanesian, Negro, Congoese, and Kaffir families. The Australians have no tillage, no pottery, no cloth, no permanent chiefs, and in most districts, no huts and no canoes. In competition with all other families, they can claim the distinction of having the largest number of people and the most extensive territory in the lowest condition of culture.

Their continent, the only one exclusively savage, that is, savage in its aboriginal population, is also the poorest of the continents in soil, rainfall, botany, and zoölogy. It has no indigenous cereal or placental mammal. The greater part of its area is an arid desert. It has no great navigable river, no large fertile valley. Africa has a majority of the savages of the globe, and as compared with the other continents, has the shortest coast line in proportion to area, the fewest good harbors, and the most oppressive climate. The Polynesian, Micronesian and Melanesian Islands are generally small, and lacking in cereals and in indigenous ruminants, and most of them have neither clay suitable for pottery, nor flint suitable for stone knives. America is poor in indigenous cereals and ruminants.

The Melanesians, called also Papuans or negrillos, number perhaps two hundred thousand and occupy Melanesia or the tropical Pacific Islands, extending through fifty degrees of longitude from Fiji to Wagen in the southern hemisphere. There are also a few small communities of Melanesians in the Malay archipelago, and these are about as low in culture as the Australians. The Papuans generally are in the tillage culturestep. They have dogs,

pigs, chickens, huts, and canoes. They have few slaves and no hereditary nobility. In industrial skill, political organization and general culture, the Fijians are much superior to the other Melanesians.

SEC. 11. *Negroes, etc.*—The Kaffirs occupy Africa from 10° S. latitude to the Cape of Good Hope. From their line to 17° N. are the Congoese, between whose territory and the Sahara are the negroes. The Bushmen, few in number, and on the same level in culture with the Australians, belong to the Kaffir family. The African blacks generally are in a condition of impure savagism. By intercourse with white men they have learned the arts of metallurgy and pasturage, and have acquired considerable stocks of iron and of milk-yielding animals; but their polity, religion, social institutions and general mental state are savage. They have no public records, no art of writing, no orderly government, and no noteworthy accumulation of property increasing from generation to generation. They have pottery, woolen cloth, large canoes and permanent dwellings. Many of their tribes have despotic chiefs, and slaves; few have a well organized nobility.

SEC. 12. *Malays.*—The Malays occupy the islands west of New Guinea and north of Australia, besides part of the peninsula of Malacca. Their territory is nearly all insular and, except Madagascar, all in the tropics. Their sea-coast is extensive in proportion to the area of the land, and their islands are near together, so that their situation is favorable to maritime commerce. As boat-builders, mariners, explorers and colonists, they and their descendants, the Polynesians¹ and Micronesians, have surpassed all other savage families. They sailed far to the west, to the east and to the north. The name Malagasy indicates that the inhabitants of Madagascar immi-

grated from Malacca; and numerous words prove the relationship of their speech with that of the Malays in Java and Borneo, and with that of the Polynesians and Micronesians. Though thirty degrees of longitude separate Tahiti from New Zealand, a native of the former group could serve as interpreter in the latter, for Captain Cook. Traditions of the first colonizing expeditions are preserved in many of the islands; and the names of their former homes were carried with them to the new islands. The word Hawaii—or its equivalent, evidently of the same origin,—is derived from the old name of Java, and is found in Samoa, Tonga, Roratonga and New Zealand.²

Since ancient times, the Malays of Malacca, Sumatra and Java have been influenced by communication, more or less direct, with China, Siam and Burma, from which they learned to smelt iron, to tame the buffalo, and to use letters, so that they or most of them long since rose into barbarism. There are however many Malays who are still savages, and of these the general cultural condition is very similar to that of the Polynesians.

SEC. 13. *Polynesians*.—The most interesting sub-family of the Malays is the Polynesian, which occupies New Zealand, Tucopia, the Ellice group, and the tropical islands of the Pacific east of longitude 180°. Except New Zealand, all this territory is in the tropics, and consists of numerous insular groups. The largest island has less than eight thousand square miles and fewer than twenty-five thousand inhabitants now, and probably had fewer than eighty thousand people when first known to European navigators. The larger islands of tropical Polynesia are volcanic and rise in their center to high peaks, with narrow belts suitable for tillage near the sea shore. Many of the smaller islands are of coral rock,

and rise only a few feet above the level of the ocean. The Polynesians and the Micronesians west of them have no metals, no pottery, no weaving, no public records and no herds of ruminant animals, but their lack of metals, ruminants, pottery and cloth should be charged to the poverty of their country, not to their want of enterprise. They have tillage, slaves, hereditary nobles and priests, despotic chiefs, ancestral gods and national divinities. Their general culture is the highest in modern savagism and in a comparison of their tribes with one another, the Tahitians are entitled to the first, and the Maori to the last place, notwithstanding the great advantages of New Zealand over every other Polynesian group, in larger population, greater area, more varied natural resources, and the stimulating influence of a temperate climate.¹

SEC. 14. *Americans*.—The Americans of aboriginal blood now living may number twenty-five million, many of them mixed with black or white blood. They have no influential nucleus of pure stock or strong aboriginal government; and those tribes which have kept their blood pure or nearly so, are rapidly decreasing in number. They are presumably descended from Asiatic immigrants who may have crossed to America by way of the Aleutian Islands or by Behring Strait.¹ Similar arts and institutions are found on both shores of the North Pacific;² and the languages of the New World, from the extreme north to the extreme south, all belong to the same polysynthetic class which is akin to the agglutinative tongues of Northern Asia.³

For convenience of description, the term Redmen will be given here to the aboriginal North Americans between the territories of the Aztecs and of the Eskimos. All the Redmen east of the Mississippi, are in the tillage cul-

ture step, many possessing pottery, cloth, canoes, and dogs; many of the tribes west of the Mississippi are in the non-tilling condition; and the lower Californians and some tribes in Central California are so low that they have no canoes, no huts, and not even dogs. Thus in the last point they are even lower than the Australians. None of the Redmen have slaves, nobles, despotic chiefs, ancestral or national gods. The mound-builders, who were Redmen, the same in family and general culture as the tribes east of the Mississippi in modern times, will be the subject of another section.

The Caribs in the region north of the Orinoco are the most advanced savages of South America. They have slaves, nobles, and sail canoes. In these they venture to all parts of the Caribbean Sea. Most of the South American tribes in the basins of the Amazon and La Plata have torpid minds and low culture.

The Eskimos, who occupy the entire northern shore of North America from Hudson's Strait to Point Barrow, spend most of their time in the snow. They live in snow huts through more than eight months of the year, and depend for food mainly on the blubber of the seal, walrus and whale. Tillage is impossible in their frozen soil, and they have no domestic animal save the dog. They neither weave cloth nor burn pottery. From the seal they get clothing, bedding, tent-covers, boat-covers, curtains, leather, waterproof garments, oil bottles, thread and oil for light and cookery.

SEC. 15. *Mound-Builders*.—Neither history nor tradition gives us any account of the origin of numerous earthworks found over much of the Mississippi basin and several adjacent regions. These structures, mostly mounds, have never been counted with precision, but the

total number has been estimated at fifty thousand. In Ohio there are thirteen thousand; in a semi-circle east of the Mississippi River, with a radius fifty miles long from the mouth of the Illinois river as a center, there are five thousand.¹ The works are most numerous in or near fertile valleys and were found on the sites of many now flourishing cities, including Chicago, St. Louis, Cincinnati, Milwaukee and Dayton. Of these works a majority are conical mounds, erected for sepulchral or military purposes, ranging from five to ninety feet in height and averaging perhaps twenty. Some of the larger mounds of irregular shape must have been intended for public worship. The largest of these, at Cahokia, Illinois, is seven hundred feet long, five hundred wide, and at the highest point, ninety feet high. It covers six acres, and its solid contents are estimated to be seven hundred and forty thousand cubic yards. Many of the mounds are shaped like animals; and one resembles a mammoth. As a general rule the material of the mound is exactly the same as that of the adjacent soil.

Besides the mounds, there are numerous walls evidently constructed for the purposes of fortifications. These, when first observed by the white men, were usually from ten to fifteen feet wide, and in the middle about a foot or two feet above the level of the adjacent soil. The walls inclosed squares, circles, long parallelograms, octagonal or irregular plots, and many were on hill-tops near water suitable for military purposes. The enclosed areas vary from ten to two hundred acres. The material of the walls is usually earth, rarely rough stone, never cut stone.

In the mounds are found many tools and ornaments of stone, vessels of unglazed pottery, net sinkers of galena,

awls of bone, beads of shell, bracelets, pendants, beads and knives of beaten copper, simple ornaments of silver, and pieces of obsidian. The copper, silver and obsidian are rare. There is no cast copper, no bronze, no iron, no cut stone, no lime mortar. There is nothing to indicate a culture different from that found in the same regions of the first European explorers. The size and multitude of the mounds indicate either that the population was much denser formerly than in the last century, or that many successive generations toiled in piling up the earth. If it be true, however, as reported, that De Soto at one place marched for two leagues through a continuous field of maize, in what is now northern Florida, that region may then have been as densely populated as was the Miami Valley when the mounds were built. Lapham, Carr and Jones, who are among the most trustworthy writers on the mounds of the Redmen, believe the modern Indians are the descendants of the mound-builders. Lapham found that the bones in some of the mounds were not more than four centuries old. Many of the military and ecclesiastical usages of the mound-builders are found among the recent Redmen. The embankments of the Iroquois to sustain their palisades have made walls like those of the mound-builders; and the Natchez and Creeks have erected mounds since the white men settled on the continent.

SEC. 16. *Aleut Mounds*.—In many countries, the sites of ancient savage villages are marked by mounds, made by the gradual accumulation of refuse from their meals, their fires, and their mechanical labors. Such mounds consist of ashes, wood, coal, bone, shell, fragments of stone and dirt. On the banks of some rivers and tide-waters rich in mollusks, a great part of the material is

shell, suggesting the name of shell mounds used in portions of the United States and Australia. Other names for such accumulations are, village mounds and kitchen heaps.

The Aleutian Indians have a multitude of village mounds, extending through thirty-five degrees of longitude from the island of Attu to Cook's Inlet on the American Continent. W. H. Dall, to whom we are indebted for our knowledge of them, opened some in Attu, Amchitka, Adakh, Akka, Unalashka, Amukna, and the Shumagin group, and he made slight excavations in many other places.¹ These excavations were remarkable on account of finding no trace of fire; and many of the mounds had strata indicating that the savages used no fish, bird or mammal as an article of food. The mounds are slight elevations near fresh water, and near harbors where canoes could land in rough weather, and consist of three strata. Of these the first and lowest was deposited when the people ate nothing but the echinus, a shell-fish; the second, when their food consisted exclusively of fish; and the third, when they had added birds and mammals to their list of provisions.

The echinus is a marine mollusk which spends part its life in deep water, but comes to the shore at all seasons of the year. Having neither acute senses nor means of speedy movement, it does not readily discover nor easily avoid its enemies, and can be taken with little effort by the rudest savages. In all the Aleut mounds opened by Mr. Dall, the layer of echinus shells was found.² In most cases it was two or three feet deep, and in one mound covered an area of four acres. Nine-tenths of the material in this layer consists, as he says, "of the broken test and spines of the echinus," and the other tenth con-

sists of the shells of other mollusks intermingled with some few fish bones. There are no ashes nor coal, nor much soil or decayed vegetable matter. Neither is there any knife, awl, stone, bone, or shell shaped artificially to an edge or point; no skin-scraper; no whorl for a spindle; no hook; no pottery; no trace of fire or cooking. The only articles shaped by art are some hammer stones, with slight hollows on opposite sides, for thumb and finger. These were used, perhaps, for breaking the shells of the echinus.³ Near the top of the stratum are some few net sinkers of stone.

The second layer made up of fish bones, commences abruptly as if the echinus-eater had disappeared completely and had been succeeded by a different community who depended on fish exclusively for their food. As the lowest layer contains little except echinus shells, so the second is made up, at least in its lower portion, almost entirely of the bones of fish, and of species now found in the vicinity. As in the first stratum, so in the second, there is no trace of fire. The condition of the bones suggests that the fish were eaten raw as they now are occasionally by the Aleuts. Old men among them attribute the frequency of disease to the degenerate custom of cooking. The fish bone stratum has an average thickness of two feet. It contains numerous net sinkers and some few spear-heads of stone, but no trace of houses. Two skulls of adults found in this stratum have a mean capacity of one thousand three hundred and twenty cubic centimetres, indicating very small brains.

The second stratum gradually changes into the third or mammal layer, which contains bones of the hair seal, the fur seal, the sea lion, the walrus, the whale, and many birds. In the lower portions of the stratum

are found lance-heads of stone, and in the upper portion, lance-heads of bone, and of bone and stone combined, some with a cord attached for fastening to a shaft. Besides these, there are awls, skin-scrapers, stones for rubbing skins, lamps of stone and of unburned clay, remains of houses and rare traces of fire. In some mounds the last stratum is ten feet thick, and in one, it covers an area of twenty acres. Twenty skulls of adults taken from this highest stratum have a mean capacity of one thousand four hundred and eighteen cubic centimetres, or six per cent. more than the mean of the two skulls in the fish bone stratum.⁵ One stone celt was found in these Aleut mounds; no axe, or gouge. Mr. Dall thinks that a thousand years should be allowed for the accumulation of the echinus layer and twice as long for each of the two later strata.

Many of these Aleut islands are distant twenty miles or more from the nearest land, and their inhabitants must have had boats, the possession of which in modern times has been accompanied in every case by edge tools, weapons and fire. If any quadruped or bird had the habit of carrying mollusks to a common feeding place on the shore of tide water, we might doubt whether the lower stratum of these mounds were of human origin. But no brute has such a habit.

The exclusive dependence of the Aleuts of the first stratum on the echinus for food, suggests that they were lower in culture, at least in some respects, than any tribe that has existed in historical times. It is worthy of remark that the largest plants on these islands are bushes not more than four feet high. Dall supposes that after the people began to kill seals, and to cover themselves with skins, they may have warmed themselves occasion-

ally by standing over grass fires with skin cloaks round them in such a way as to shut in the smoke and heated air.⁶

SEC. 17. *Pleistocene Europeans*.—The white race comprises the civilized Euraryans, some civilized and many barbarous Asiatic Aryans, and some barbarous and some savage Semites in Arabia and Abyssinia. Whether the prehistoric Europeans of the pleistocene age and of the later periods of tillage and bronze culture were white men, is doubtful.

Between two glacial periods man lived in Switzerland ;¹ and there were men in California before the rivers flowed in their present beds and before the Sierra Nevada had received its present shape by the aid of elevation, eruption and erosion.²

Perhaps the earliest men of whom we have numerous traces were the drift Europeans, so called because their remains are found in the drift or gravel of the ancient river channels in France and England, at elevations eighty or one hundred feet above the level of the present streams. The erosion of the soil or perhaps rock to such a depth suggests the probability of the lapse of hundreds of thousands of years, but there is no distinct proof of the length of the intervening period.³

In the pleistocene geological age the reindeer, the musk ox, the marmot, the arctic fox, the snowy owl, and other animals similar to those now found in Lapland, and other lands equally near to the pole, existed in Central Europe, while that region had a subfrigid climate. With them were the hairy mammoth and man. These pleistocene Europeans dwelt in caves, and had neither tillage nor polished stone tools, nor pottery, nor woven cloth, nor domestic animals. They did not bury nor

burn their dead. They had axes and chisels of flint, bows, arrows, arrow-straighteners, barbed fishing and fowling spears, daggers, marrow spoons, needles, skin-scrapers and amulets like those of the Eskimos, whom they resembled in lack of tillage and of pottery, in indifference to the dead and in skill as draughtsmen. Unlike the Eskimos, they were cannibals and had no dogs. The bones of those animals are not found in their caves, and such small bones as dogs chew up and swallow are numerous. They understood the value of flint as a material for stone knives and arrowheads, and flaked off chips from cores. Their food was mostly animal and they cooked their meat with hot stones, whether by boiling or baking or both, is uncertain. They broke the marrow bones of large quadrupeds and of men for the purpose of digging out the fat contents.⁴

The cave men continued to live in Central Europe from the subfrigid pleistocene to the subtropical or tropical pleistocene period, when the arctic mammals had disappeared and had been succeeded by the elephant, the hippopotamus, the rhinoceros, the hyena, and the cave lion. During the thousands of years which had elapsed in the meantime, there was no perceptible improvement in culture. The later cave dwellers of the pleistocene age were like their predecessors in the lack of tillage, pottery, and polished stone. Rude as were their lives, they were not without a taste for art. In France, Britain and Switzerland, the cave men made drawings of animals and hunting scenes on bone, horn, ivory, and stone, with remarkable action, accuracy of proportion, and steadiness of outline—at least, as compared with similar productions by other savages.⁵ They have left us sketches of the woolly mammoth, of the

reindeer feeding, of a horse with a short upright mane, of the stag, of the ibex, of the Irish elk, of the cave bear, of the seals, and of men.

SEC. 18. *Danish Mounds*.—The earliest traces of men who had polished stone tools are found in the peat bogs and village mounds of Denmark. These bogs contain the remains of three distinct botanical periods. The highest stratum has trunks of the beech, which is now, as it was two thousand years ago, the characteristic tree of the country. Under the beech, is an oak stratum, with the pedunculated oak in the upper and the sessile oak in the lower portion. Still lower is a third stratum of the scotch fir, containing many trunks three feet thick. This tree is not now found in Denmark, and when planted there does not thrive. The climate must have changed since the Scotch fir grew there in forests of large trees. Under one of the logs in a Danish bog was found a flint shaped by man—proof that men lived in the Scotch fir period.

Contemporaneous, presumably, with the fir, are some of the shell mounds, now from one foot to twenty feet above the level of high tide. Some of them are three hundred yards long, sixty wide and three high. Their material is a mixture of shells, bones, ashes, charcoal and earth. The shells of the oyster are abundant though that mollusk does not live in the modern Baltic, the water of which is too brackish for it. The shells of the cockle, mussel, and periwinkle are much larger than the shells of the same species found now in the same waters. This is another evidence that when these mounds were built up, the Baltic had a larger proportion of salt in its water and had a wider connection with the ocean than at present.

Among the common birds was the penguin, which long since disappeared from Europe, but survives in Greenland. The Danes of the fir period had edge tools of polished stone, but no metals, no cultivated plants, and no domestic animal save the dog. They caught the cod, herring and flounder in the sea, and they killed the capercailzie or grouse that eats the buds of the Scotch fir. No bones of mammoth, elephant, rhinoceros or reindeer are found in these mounds. The skulls of the people are small and similar to those of the Lapps.¹

SEC. 19. *Swiss Lake Dwellings*.—The largest body of information about prehistoric sayages in any part of the world, is derived from relic beds found in various lakes of Switzerland. There archæologists have found tools and weapons of stone, bone, horn, and wood, household utensils of wood, pottery, and stone, the remains of houses and their furniture, the refuse of kitchens and stables, besides boats, baskets, mats, cloth, nets, thread, leather, toys and ornaments. These things had lain there undisturbed for thousands of years, until they were discovered, collected, studied and described, about the middle of the Nineteenth century.

One hundred and thirty-three prehistoric village sites in sixteen Swiss lakes are known. Of such villages the lake of Neuchatel has thirty-six, the lake of Geneva twenty-four, and other lakes, smaller numbers. Of the total number, thirty-three when last inhabited were in the culturestep of stone; twenty-two in that of bronze; seventeen in that of iron; and in regard to sixty-one, there is no distinct statement of the cultural condition, perhaps, because since their discovery, their sites have always been too deeply covered with water to permit a satisfactory examination.

Most of these villages were built on piles in water from two to twelve feet deep, when the lakes were at their lowest level. The piles were from three to eight inches thick, and were driven from three to five feet into the mud. In the villages of the stone culturestep, the only ones to be considered here, the piles before driving were sharpened at the bottom with fire or by stone axes; and at the top were morticed to hold beams on which were laid floors of poles or rude planks. The houses were of poles wattled with twigs, plastered on the sides with clay, and on the roof thatched with straw. The outer rows of piles were wattled, and in some villages stones were placed around them to steady them. Walks on piles led from the land to the platform.

Such a pile foundation not only cost much labor, but after completion, was, in many respects, less convenient than the shore for a village site. In case of fire it was difficult to save young children, cattle and food, which were kept there; and through holes in the floors, tools, cattle, and children would occasionally fall. Such objections were doubtless evident to the villagers, but they were more than counterbalanced by the importance of having sites relatively secure against sudden attacks of human enemies. These villages were built for constant residence, not for occasional refuge.

In some few cases, the lake villages, instead of standing on piles, were supported by an artificial foundation made by sinking rafts of brush loaded with stone or gravel, and kept in place by piles.

Of the thirty Swiss villages known to be of the stone age, mentioned by Keller, fifteen are in the lake of Constance, seven in that of Neuchatel, and one each in a number of other lakes.

Wheat, barley, millet, caraway and poppy were cultivated; the seeds of the poppy and caraway being used for flavoring. Tillage seems to have received much attention, for manure was saved for agricultural purposes. Wild fruits, berries and nuts, including apples, pears, plums, cherries, grapes, strawberries, blackberries, beech-nuts and walnuts, were gathered for food. Domestic animals were numerous. The cow, the urus, the horse, the sheep, the goat and the pig were stabled occasionally at least, and perhaps every night in the pile villages. A large part of the animal food of the people was however obtained by the chase of wild animals.

Pottery shaped by hand was abundant. In some cases the clay for it was mixed with powdered charcoal, or with small pieces of granite, silicious rock or partially burned limestone. Many of the pots for cooking had conical bottoms which rested in a clay ring, a pattern adopted perhaps for the purpose of diminishing the danger of burning the cooked food. Bowls and platters were made of wood and steatite. Large pans were perforated as if for making cheese.

Pieces of yarn, thread, cord, rope, cloth woven on different methods and matting are found. Some houses had large stocks of flax, as if belonging to professional weavers. Fishing lines were made of flax, and were set with baited hooks. For raising such lines, the prehistoric Swiss lake dweller had the arpion, a peculiar dredging hook, now used for the same purpose in the same place. Among the relics are netting pins, crochet hooks, hairpins, and combs. Glass and nephrite from Asia, flint from Germany or France and amber from the shores of the Baltic furnish evidence of traffic with remote lands.

These Swiss lake dwellers of the stone culturestep were

superior to any modern savages. Their possession of the cow, sheep, goat, pig and horse as domestic animals ; their system of keeping them in stables ; their cultivation of wheat, barley and flax ; and the construction of their pile houses, when considered together, indicate that they had advanced much farther than the Tahitians.

The wheat, barley and flax cultivated by the Swiss lake villagers had been brought from Asia, and probably the cow, the horse, the sheep, the goat and the pig, bred in stables on piles, were first domesticated systematically on the same continent. Possibly the lake dwellers were Aryans who, accustomed to cultivating the soil and keeping herds in their Asiatic home, brought animals and seeds with them in their westward migration, and thus introduced them into Europe.

The small proportion of bronze and iron relics found in most of the Swiss lake villages which were occupied after the introduction of metals, implies that these settlements had continued in the stone culturestep for many centuries. The moor villages of Italy, the Scotch and Irish crannoges or strongholds built in swamps, are, in many points, analogous to the Swiss lake villages, but do not give us any important additional information about the stone age.

CHAPTER III.

INDUSTRY.

SEC. 20. *Fire*.—Of the important arts acquired by man, the earliest may have been those of making edge-tools, of using articulate speech and of taming fire.¹ Some Australians and Tasmanians² are the only modern savages who have not known how to kindle fire, but they possessed it, kept it burning continually, and carried it with them carefully, when moving. There are many countries where fire may be obtained from natural sources, but to get it occasionally by accident and then to use it for only a few hours is very different from taming it so that it shall always be ready to render service in every hut or group of people. Without such taming, man would perhaps never have ventured far from the tropical region in which he had his origin. If he had not established himself in the temperate zone he never would have reached his present intellectual development. Besides protecting him against cold and carnivorous beasts, fire rendered many kinds of food more palatable and more digestible to him, and stimulated him to carry his provisions to a place of assemblage and companionship where the cooking could be done conveniently. Thus it became a great aid to sociability, and gave a higher value to the woman who became its custodian and the chief advocate of the social feelings connected with the do-

mestic hearth.³ The construction of the kindling apparatus, the precautions necessary to keep it ready for immediate use, the necessities of borrowing and of transporting fire, and the inconveniences resulting from its occasional extinction, when it could not be kindled again soon, were stimulants to thought, and to mutual helpfulness. There was presumably a condition in which the lack of fire was the characteristic feature of an early culturestep, but of this stage of human growth we have no certain remains.

In Australia fire is kindled by rubbing a hard stick in the groove of a stick of soft wood, until enough heat is evolved to set fire to wood dust, shavings or tinder. The fire drill, of hard wood pressing on a hole in soft wood, is turned between the palms in Polynesia; by a string pulled first one way then the other in Dakota and the Eskimo region; like a carpenter's brace in the Iroquois region, and in some countries by a loose bowstring fastened to the top and worked pump fashion. In western Africa the necessary heat is obtained by rubbing stone on wood with sand between them; in Malaysia, by striking a bamboo splinter with flint. The taming of fire was a necessary result of the custom of making tools and weapons of wood and stone.⁴

SEC. 21. *Non-tilling Culture*.—Many eminent archæologists have followed Lubbock in dividing savages into the paleolithic and neolithic, those of the old or rough, and those of the new or polished stone. The former shaped their stone tools entirely by fracture; the latter rounded and polished off the fractured surface of certain tools. The distinction between savage tribes on this point has small influence on their manner of life, and little culture-historical importance. After taking a comprehen-

sive view of the savages known to civilized observation, we shall find that they properly belong to two main classes; those who do not and those who do till the ground.

If some civilized men were cast, without any product of art, on an uninhabited island similar in its geological, botanical, and zoölogical features to Great Britain, the tool for which they would first feel an urgent want would be a knife, and the material of which they would first make it would probably be the shell of a mollusk or the bone of a mammal, either of which they could find without long search. The bone would be better in its form, the shell in its hardness. As these materials would furnish the first knives to civilized men, under the circumstances supposed, so they presumably supplied the first to primitive men.

But after a time, those savages discovered that various kinds of stone could be shaped into knives with less labor, or would take a sharper or harder edge and a more convenient form, than shell or bone. Many centuries elapsed, perhaps, before it was found that from a rough cylinder of flint, chert or obsidian, eight inches long and six inches thick, a hundred knives as long as the block and an inch and a half wide, with a sharp edge on each side, could be split off in half an hour by one man. Some flakes were shaped into chisels, awls, borers, scrapers, arrowheads, and spear-heads; and when the lump was too small for splitting again, it was made into an axe.¹

Obsidian made the sharpest but least durable of the flake knives, the material being much more brittle than flint. Flake razors of obsidian were used by Aztec barbers, but a dozen were sometimes ruined in shaving one man. Flint and chert were at first obtained for knives

from loose lumps found on the surface of the ground or in the beds of streams; but at a later time were dug from quarries.² Flake knives were never polished, even after the custom of polishing stone chisels and axes was well established.

SEC. 22. *Tilling Savagism*.—The introduction of tillage had an immense influence on savage culture. It gave an increased stock, and a regular supply of food, and a permanent home; it led to an increased density of population; it accumulated property and furnished men to defend it; it made a demand for systematic and divided labor. It served as a foundation for many other industrial arts. If it did not give birth to canoe building, pottery, weaving, stone polishing, and the breeding of domestic animals, it at least furnished the means and motives under which they reached their highest development in savage culture.

Whether men tilled the ground before they polished stone is doubtful, but the two arts were not far apart in the time of their origin. The first stone tools to be polished were perhaps chisels, and after them may have come axe heads. Unlike knives, these could not be flaked off by a single blow or one movement of pressure, nor could a satisfactory edge be given to them by fracture; nor was the amount of stone so small that it could be thrown away with indifference. It was easier to make a new knife of obsidian or flint than to sharpen an old one; not so with an axe head or a large chisel. The flake knives were thin and at their edges brittle, and therefore soon worn out. But the axe was relatively thick and blunt, and could be made of hard, tough stone that would not flake off into knives. The stone axe head was a notable contribution to savage culture. On account of

its weight, it could be used in a blow with considerable momentum. Although a poor implement for cutting wood, it was through a long era the best obtainable, and in the process of making clubs, canoes, poles and spears, was especially serviceable in clearing away coal and half-burned wood.

The perforations in axe heads for the handles, were made by dropping water on the hot stone in some cases, in others by hammering and grinding. The battle-axes of the aborigines of New Britian were made in the former manner. By attaching a handle to it, the axe head was converted into an axe, with an important addition to its impetus and efficiency, and by turning the edge in another direction, it could be changed into an adze.

Many writers have accepted the idea that pasturage precedes tillage in the development of culture, but they produce no proof, and the best direct evidence, that of the Redmen, is against them. In the basin of the Mississippi we find great numbers of large indigenous ruminants—buffalo, elk, deer, antelope and goat—animals well fitted by nature for domestication, in the midst of tilling savages, who never domesticate them. An early Spanish writer, Gomara, asserts that the buffalo was tamed on the basin of the Rio Grande, and Alexander Humboldt mentioned his statement as perhaps correct; but it lacks confirmation and deserves no credence. Pastoral communities are usually lower in culture than those which depend for their support on tillage; but it does not follow that pasturage is the earlier occupation. In some countries, herds are considered preferable as property to tilled fields, because they can be driven away from marauding enemies or because they are better adapted to a dry climate or mountainous surface. In many extensive re-

gions tillage has preceded pasturage ; it cannot be proved that in any has pasturage preceded tillage. It seems that the habits of economy that grew up with the cultivation of the soil, were necessary to convert pet animals into herds.

SEC. 23. *Spear, Bow, etc.*—The savage tools of the chase and of war, distinctively classed as weapons, are the inventions of long experience and much ingenuity. The Kaffirs and many Negro and Polynesian tribes take no offensive weapon into battle save the spear, which on the other hand is not used by the Bushmen and had an inferior place among the American savages. In portions of Polynesia it was thrown so dexterously, that its aim was more accurate at fifty yards than that of the musket in the hands of Cook's sailors.

Some tribes have discovered that the whirling of a spear or arrow on its longitudinal axis corrects the deflecting influences of bends and unequal weights on the sides. The whirl is given by a twist in the shaft, in the head, or in feather attachments, or by an unwinding thong, which last serves also, as if it were a prolongation of the arm, to give additional impetus.¹ Instead of thongs, some tribes use a stick two feet long, or a stick and thong together, all of which devices are akin to slings in their influence on the missile.²

The common sling is little used by most savage tribes, but is a favorite with the Fuegians, New Caledonians and Hawaiians. The New Caledonians give an acorn shape to their sling stones as the ancient Greeks and Romans did to their leaden sling shots.³ Sling balls of burned clay were made by the tilling prehistoric Europeans, perhaps for the purpose of throwing them red-hot into the huts of their enemies.⁴

The thong-balls or bolas, stone balls two inches and a half in diameter, fastened together in couples or triplets, by a thong about six feet long attached to each ball, are used by the Patagonians, Araucans and some other South Americans with much effect in the chase of the guanaco, ostrich and horse, being thrown so as to tie up the animal's legs. The long sling and considerable weight of the balls make them effective at a distance of a hundred yards.⁵ The Eskimos have a similar implement called the birdsling, consisting of six or seven oval weights, an inch long and half an inch thick, each attached to a cord thirty inches long, all the cords being fastened together at the other end. These birdslings tie up the wings of geese and ducks as the bolas tie up the legs of South American game.

The combination of strength with elasticity required for the bow is not found in the timber of some regions, and there bows are not made, or the wood is brought from other places. Most of the savage bows are of the ordinary size and pattern, but some in the valley of the Paraná are so large that the Indian when he shoots lies down, and uses both feet and both hands in shooting heavy arrows headed with burning cotton to set fire to the enemy's huts. The Veddahs of Ceylon have bows which they stretch in the same way. The cross-bow is known to few savages, but the Fans have it. The Abipones have a bow with a cup in the cord to throw a bullet an inch and a half in diameter.⁶

The bow is not used by the Australians, Tasmanians, Kaffirs, Dinkas, aboriginal Cubans, Jamaicans or Pampas. In most of Polynesia, it is a plaything for boys, not a weapon for men. The Redmen, Bushmen and some negro tribes use it more than the spear.

Small arrows eight inches long are thrown through blow-tubes, ordinarily for killing game and on rare occasions for war, in Malaysia, Melanesia, Brazil, Paraguay, the valley of the Orinoco, Mexico, Central America, Chile and Peru. The tube is about eight feet long and has a caliber of a quarter of an inch. The utmost range is forty yards, and there is little accuracy of aim beyond twenty. The blow-tube arrow is tipped with virulent poison, so that a very small quantity of it will quickly prove fatal to a large quadruped.

Poisoned arrows are thrown from the bow by the Bushmen, Bechuanas, Congoese, Kordofanese, Fans, Andamanese, Ajitas, Melanesians, Malays, Floridians, Pimos, and Californians. Poisoned stakes and spears are set in paths for enemies and game of Bushmen and Hottentots.

Poison, on the point of the spear or arrow, though most frequently used in the chase, is also employed in war by many tribes. Creases in the head of the weapon protect the venom against loss by rubbing, without preventing its solution in the warm blood. The poisons are taken from many sources, including serpents, insects, and the seeds and juices of plants. One of the simplest methods of obtaining arrow poison is that of certain Californian tribes, which irritate rattlesnakes with a deer's liver until they bite it repeatedly, throwing their venom into it every time. This liver is allowed to putrefy, and then the arrowhead is thrust into it. All poisons used for killing game are of kinds fatal in the blood but not in the stomach; yet the part struck by the weapon is usually thrown away.

SEC. 24. *Clubs, etc.*—Clubs are of many kinds, heavy or light, long or short, to be kept in the hand or to be thrown, and made of wood, bone, or stone. Heavy

clubs are used mainly in war; the lighter ones in the chase. A long, heavy club is carried by many Polyneesian nobles as a symbol of their rank, on all ceremonial occasions.

The characteristic weapon of New Zealand is the *merai* or *patoopatoo*, eighteen inches long, five inches wide in the blade which is shaped like a beaver's tail, and two inches thick in the handle, tapering to half an inch at the point of the blade. A cord at the end of the handle slips over the wrist to prevent loss. The preferred material is jade, though to shape and polish it without metal requires the labor of months.¹ Sometimes it is made of a bone of a whale. The Quichuans made a like weapon of brown jasper.

The *kerry*, the chief weapon of the Quaiquai Hottentot, with a stem about three feet long and a round knob, nearly three inches in diameter at the end,² is thrown with much effect in the chase. The *rackum*, a club a foot long with pointed ends, is used for the same purpose by the same tribe. A throw-club of the Paraná valley is two feet long and thicker at the ends than in the middle. The Fannese have stone throw-clubs, a foot long, pointed at both ends, and two inches wide and an inch thick in the middle.

Neither the sword nor any weapon similar to it in form and method of use, is known to the non-tilling savages. Its value in war does not become evident until warriors learn to charge in compact masses. Then long flat stones, and bones with sharp edges, and clubs into which sharks teeth and thin pieces of bone, stone or shell are fastened, become weapons similar to swords.

The boomerang is a flat or flattish crooked throw-club, about thirty inches long, with two arms of equal or un-

equal length, uniting at an angle varying from ninety to one hundred and seventy degrees. The width may be two inches and the thickness half or three-quarters of an inch. One side is usually flat, and the other curved or beveled to the edge. Held by the longer arm, if one be longer than the other, with the flat side down, and thrown with much force, it flies away whirling round on its corner, as a center of rotation, resembling in its motions the flight of a dodging bird, usually pursuing a curved course, now going nearly straight, then turning short corners, and sometimes coming back and falling to the ground very near the point from which it is thrown. The principles involved in the movement of this weapon are so abstruse that they have never been explained satisfactorily, and of course they were never understood by savages. No two boomerangs take exactly the same course, even when thrown at the same angle and with the same power; and it is impossible for anyone, unless familiar with the special implement, to know how to avoid it. The skillful thrower must often dodge quickly to escape a blow from its return. On account of its winged flight and the impossibility of calculating its course, it is an effective weapon for striking flocks of birds in the air. The boomerang is the characteristic throw-club of the Australians; and a crooked throw-club is also known to the Lower Californians,³ the Moquis,⁴ the Soudanese,⁵ and was used by the ancient Egyptians,⁶ and Assyrians.⁷

Shields are made of wood, or of wooden frames covered with hide. Lengths vary from two to six feet; and widths from five to twenty-four inches. Some long New Guinea shields have sharp points suitable for inflicting a fatal wound on a prostrate enemy. The very light shield

may be used either to stop the approaching weapon or to touch it and divert its course.

Generally savages wear no defensive armor fastened to the body, but the New Zealanders and some Africans have coats of thick matting or padding, and the Haidahs have breastplates of twigs interwoven with rawhide.

SEC. 25. *Omnivorous*.—Man is the distinctively omnivorous animal. His dentition, his palate, and his digestive organs prepare him to eat all those animals and plants which contain much starch, sugar or albumen, without poison. Lean meat, fat, gristle, skin, grain, fruit, legume, tuber, nut, bark and insects are all welcome to his stomach. The nitrogenous character of grain and lean meat make them indispensable to his high development; and on the other hand, his digestive organs have not the large size and peculiar form suitable to derive great activity from a diet consisting exclusively of fruit or grass. He must have grain or meat, and since the former could not be obtained in regular supply by savages, meat was necessary for them, and until population became dense, and game scarce, they always had it. In every clime, in every continent, and in every grade of culture his preferred food is supplied by the animal kingdom; and not satisfied with the meat of brutes, many savage tribes have delighted in feasts on the flesh of their own species. By his mental and physical capacities, man is impelled to attack and enabled to slay the most ferocious carnivores and the largest pachyderms. He strikes the bird in the air and the fish in the water; he takes the rabbit in its burrow, the seal on the ice, and the whale in the open sea. Against his attack neither the shell of the mollusk, the quill of the porcupine, nor the venom of the rattlesnake gives secure protection.

The excitement of the chase is one of his greatest pleasures, and it increases with the activity and defensive power of the game.

In many countries where there is little division of labor, and no systematic exchange of products between different regions, the people must derive their food from local and often from indigenous products, and may be limited for a considerable part of the year to a single article, such as the seal in arctic America, the salmon on the banks of the Columbia, the buffalo in the basin of the Missouri, the lichen in Iceland, taro, breadfruit, or pandanus fruit in portions of Polynesia and Micronesia, cassava in some, and yucca in other parts of South America, sago in Malaysia, shell-fish in many sea-coasts, reindeer in subarctic lands, cow's milk in some African, and mare's milk, or buffalo's milk, or camel's milk in some Asiatic districts. Uniformity of diet becomes offensive to palate and stomach, and makes a demand for many flavoring substances that are offensive to the civilized man who is accustomed to a considerable variety of food in every season. After having eaten nothing but blubber and oil for months, the Eskimo becomes hungry for meat, as the Gaucho, after an exclusive diet of lean meat, longs for fat, and the negro, who has tasted nothing save fruit for months, has an extreme craving for animal food.

SEC. 26. *Bread and Meat.*—Many savage tribes make bread of acorns or seeds, but none have made their loaves light by leaven, unless they had learned the art of bread-making from people in a higher stage of culture. Cakes are made from cassava by the aborigines of the Amazon and Orinoco, and from pine tree moss in seasons of scarcity, by those of the Upper Columbia.

East of the Mississippi, maize is eaten in the green ear,

roasted or boiled; in succotash, a mixture of the grain in the milk cut from the ear and boiled with beans; in mush, in hominy and in bread. Many different flavors are used, including maple syrup, walnut oil, hickory milk, and bear's fat. Hickory milk, made by mashing hickory nuts and mixing with water, is added to the dough intended for bread, and also to mush and hominy.¹ Maize meal is made either from the ripe grain or from that cooked in the milk, dried and pulverized in a mortar. Concha, a mixture of roasted maize and lime prepared by the Indians of the Amazon, is by Herndon praised as superior in flavor to green maize roasted. Mushrooms are a staple article of diet among the Fuegians, and the fern root among the Ahts of Vancouver Island and the Maoris. The Indians of California like to have their wild lettuce flavored by the acidulous secretion from the bodies of red ants. They lay the vegetable where the insect will run over it, or they pound an ant's nest, and when the irritated inmates come to the surface, hold the lettuce over them and the liquid is thrown upon it.

Meat and fish are often eaten raw. The liver of the deer and the antelope, and the marrow of the elephant, fresh from the carcase, and still warm with the heat of life, are delicacies to many white hunters, as to all savages familiar with them. In Abyssinia there are feasts in which the chief dish is raw beef, cut from a cow tied at the door.

By savages generally, blood as it flows from the living quadruped or bird is considered a delicious beverage. In many countries the preferred method of killing an animal is to cut its throat so that the blood shall flow about as fast as a man can drink, and then apply the

mouth to the wound. The Gallas and some other Africans open veins in the necks of their cows, and, after sucking as much blood as they wish, sew up the cut. Other tribes bleed their herds into buckets, at regular periods, and drink the blood mixed with milk.

After killing an ostrich, the Bushman turns the blood from its carotid artery into its crop, the contents of which are eaten while still warm, after they have been mixed by rolling the body from side to side. The Araucan hangs up a live sheep by its forelegs, cuts its carotid artery, which he turns into the windpipe, and after the lungs have thus been filled with blood, flavors them with salt and pepper, and eats them raw and warm with the heat of life.

SEC. 27. *Daintiness*.—The savage eats all the accessible kinds of food which are used on the tables of civilization, and many others. Being unable to command a constant supply of clean and fresh provisions, he has occasionally accepted filth and putridity, until, by custom and inheritance, they have become welcome to his eyes, nose and palate, and in some cases he has even learned to prefer them. Many of the Pacific islanders are in the habit of burying cooked breadfruit, taro, sweet potatoes, and other vegetables, and thus keeping them for months, to be eaten after passing the sour stage of fermentation. The Otomacs of South America keep their beans in a similar manner. A preparation made from the decomposed Afiti fruit, is a favorite sauce in Dahomey. In subarctic countries, in portions of Africa and in the Solomon Islands, meat enclosed in sealskins is kept for a year underground, and when far advanced in decomposition, is eaten with relish.¹ By many tribes, monkeys, opossums, ducks, pigeons and other birds and quadru-

peds are cooked and eaten with their entrails. A favorite chowder of the Philippine Islands is made by boiling the material from a goat's stomach with fish. The green matter found in the intestines of large ruminants below the stomach is used as a sauce, and the half digested herbage from the paunch of an ox is a delicacy to a Bongo, as that from a sheep's stomach is to an Abyssinian, and that from a reindeer's stomach to a Chook-chee or a Lapp.

By the savage, as by the carnivorous quadruped, the entrails are eaten in preference to the muscular fibre, and are the first to be consumed when, in hunger, he obtains possession of a carcass. The large intestine, just below the stomach, is to him the choice part of an herbivorous animal, and after it has been once pressed out rapidly between the fingers, is eaten without washing. A small portion of the green matter improves the flavor; and the same material with gall, is used by the Abyssinians as a sauce upon bits of the raw stomach and raw liver of the ox mixed together.

Earthworms, slugs, caterpillars, larvæ, dragonflies, beetles, moths, ants, parasitic insects from the human head and body, spiders and maggots all contribute to the savage bill of fare. Near Moorzuk, on the northern edge of the Sahara, a species of worm is prized as an appetizer; at Nyassa, gnats are pressed into cakes to be used as a relish; and in South Africa, the Waiyari eat cakes made of an insect similar in appearance to a tick. In Manyuema, swarming ants are cleansed of their wings and legs by fire and then eaten. White ants are a relish in East Africa; and the Monbuttoos make a fat for the table from the male termites.

SEC. 28. *Salt and Clay*.—A demand for salt, being a re-

sult of a vegetable diet, is not found among the Eskimos, Gauchos and many Malay, Papuan, African and North American tribes. In portions of Africa and Malaysia, the ashes of saline plants are used directly as a substitute for salt or are leached out and the salt obtained by evaporation. Many Polynesian and Melanesian tribes, when eating raw fish dip them into sea water, to get the saline flavor.

Clay, red ochre, pulverized soapstone and other kinds of earthy matter are eaten as part of their ordinary diet by savages in every quarter of the globe. Some tribes eat clay only when they have little or no nutritious food or when having none save meat, they need something else to distend the stomach. When going far to sea, the Dyaks take along red ochre to eat if they should catch no fish. Edible clay is sold in the markets of Java. The Otomacs mix an unctuous clay with other food;¹ in Gambia a clay, with a piquant odor, is eaten with rice; and in Brazil a saline clay serves as a substitute for salt. Quids of clay are chewed by the Wanyamwuezi, and quids of clay mixed with ashes by the Somali.

SEC. 29. *Cannibalism*.—Cannibalism prevails extensively among savages, so extensively that Andree calls it one of the characteristic diseases of the childhood of our race. There are four kinds: the starving, the military, the ecclesiastical and the gourmand. The cannibalism of starvation is found in the highest as well as in the lowest grade of culture. Military cannibalism is the eating of a small part of his slain enemy by the successful warrior, either as an expression of hatred, as a method of appropriating the victim's courage, or as a protection against the persecution of the victim's spirit which is forever destroyed when his heart, his eye or his brain is

eaten. In cases of great animosity, slices of flesh are cut from the body of the live prisoner and consumed raw and warm before his eyes, while he is taunted and his tribe cursed by the captors. We have accounts of such tortures by Fijians,¹ Tonkaways,² Apaches³ and Batta Malays.⁴

Ecclesiastical cannibalism requires priest or people to eat part of the human victim sacrificed to the gods, and induces the family to eat the body of their relative, whether parent or child, brother or sister, who has died naturally. The Tarianos and Tucanos of South America bury their dead friends, after several months dig them up, dry the decomposed flesh over a fire, pulverize it and mix it with their drink. The Australians near Carpenteria Bay eat the warriors of their own tribe slain in battle, but do not taste the corpses of their enemies.

Gourmand cannibalism, the eating of human flesh as an article of ordinary diet when other food is abundant, prevails among the Melanesians generally, the Maoris, the Marquesans, the Botocudos, the Tupis, the Caribs, the Fans, the Niamniams, the Monbuttoos, the Mandingoes and the Bonny negroes. Its existence in prehistoric Europe is proved by the finding of human bones cracked for their marrow in the caves of France, Spain, Portugal, Italy, Belgium and Germany. The threat to "eat up" an enemy common in many African, American, and Polynesian tribes which have not been cannibals in modern times, is doubtless an inheritance from cannibal ancestors. Human sacrifices as a part of worship is a survival of gourmand cannibalism. That meat which was most palatable and most honorable in the feasts of men must also be given to the gods; and the wide prevalence of such sacrifices is one of the most striking proofs of

the equally wide existence of the custom out of which they grew.⁵ The name of the Atacapa tribe in Louisiana, of the Mohawk in New York, of the Puru in South America, and of the Windigo clan of the Chippeways near Lake Superior, all mean man-eater.

The Fijians carry gourmand cannibalism to its highest development. They call human flesh "long pig;" they use special and sacred forks for lifting it; and one chief among them had the credit of having eaten portions of nine hundred persons. At one Fijian feast, two hundred human victims were eaten; at another twenty-eight captives, after being stunned, were thrown into an oven to be roasted alive. At one New Zealand festival after a great battle, more than a thousand captives were cooked and eaten. The Tupis and some Congoese fatten prisoners before killing them; the Tupinamboos breed them for the shambles, and eat the children of male slaves by free women of their own tribe or village. Human fat and flesh are offered for sale in the Niamniam villages, and human flesh is dried for future use by the Caribs, Monbuttoos and some Melanesians.

All savage tribes, accustomed to cannibalism, consider human flesh a delicacy. The highest chiefs and most active warriors eat most of it; the very old men and boys get a little; the women none. In Equatorial Africa, as in New Caledonia, the palms of the hands are considered the most delicious morsels, and in the latter country are reserved for the priests who, there as elsewhere, demand and often obtain the best. The thigh of the man and the breast of the woman are preferred in New Britain;⁶ the arm above the elbow and the thigh, in Fiji.⁷ In New Ireland men are baked in covered pits for three days, and then to use a native expression, become as "tender as

grease." The brains are mixed with sago and cocoa-nut for the feast.⁸

A peculiar cannibal custom exists in parts of western Australia where the bunyabunya grows. About once in three years the trees bear an abundant crop of fruit, much more than the tribes occupying those districts can consume. They allow friendly tribes in the vicinity to share their fruit harvest, subject to the condition that every outside tribe while staying in their domain shall kill one of their own number, as proof that they are not destroying any of the quadrupeds, birds or insects of the district, and thus diminishing the local stock of animal food, which is not offered to the strangers, as there is not more than enough for home consumption.⁹

The tribes noted for cannibalism, generally bury their dead relatives with respectful ceremony, and depend for their supply of human flesh exclusively upon enemies, slaves or strangers. In some regions, however, any person not belonging to the same clan or village may be eaten. Thus the Fans and Wabembe sell the corpses of their friends who die a natural death to the people of the next village, where they may be eaten without offense. The Fans, Vateans, Fannese and Fijians, not content with eating fresh corpses of those who die a natural death, occasionally feast on bodies after they had been buried for several days.

Cannibalism when practiced extensively is an indication of superior activity and courage, and is most common in tribes which are far from the lowest phases of savagism. The Bushmen, Andamanese, Australians generally and aborigines of Lower California are not noted for fondness for human flesh, though some of them taste it occasionally. Among the islanders of the Pacific,

the Fijians and Maoris are distinguished as cannibals and warriors; so are the Fans, Niamniams and Monbuttoos in Africa. It would be impossible for poor fighters to obtain large supplies of human flesh. Habitual success in war implies energy in industrial occupations and compactness in political organization, and these are to be found among the most noted cannibal tribes as compared with their neighbors generally.

SEC. 30. *Cooking*.—Man is a cooking animal. Every tribe known to modern observers prepares some of its food with fire. Broiling, the simplest method of cooking processes, is rarely practiced in many countries and is impossible in the snow hut of the Eskimos, where the only artificial heat is that of a small, smoky lamp, which could not be used for any method of cooking save boiling. Tradition says that Mohammed prohibited the singeing of meat by fire, and perhaps for this reason, many Arabs and some negro tribes under Arab influence never broil or fry meat or bake it before an open fire.

Roasting in hot ashes or under coals, was perhaps the second cooking process in the order of its discovery. Before roasting their fish, the western Australians wrap it in aromatic bark which gives it a delicate flavor.¹ The Polynesians bake pigs, dogs, men, taro and other food in pits which on rare occasions may be eight feet deep and fifteen feet in diameter. Red-hot stones at bottom, sides and top supply the heat; which is retained by a covering of earth, and the baking may continue from two hours to three days.² The Patagonians cook the American ostrich in the open air by putting hot stones in the cavity of the body after the entrails have been taken out.³ The Danakils of Africa cover a hen, feathers entrails and all, with wet clay, and put the lump in the fire to cook.⁴

Among the Aleuts meat to be cooked is put between two concave and platter-like stones, the joint being covered with wet clay, before the vessel is put in the fire.⁵

Water is raised to the boiling point for cooking purposes with hot stones in cocoa-nut shells by the Kingsmill Islanders;⁶ in gourd shells by the Georgia Indians; in birch bark pots by some Missouri tribes;⁷ in wooden troughs by the Kamtschatkans, Columbia River and Vancouver Island tribes; in watertight baskets by the Haidahs, Yukons, Ostiaks and Californians; in skins with the hair side down resting in earth holes, by various North American tribes, including the Assiniboin, whose tribal name means skin-boiler, and in earth holes lined with clay by the Australians of the lower Murray valley.⁸ The Malays sometimes boil their food in a joint of bamboo, resting with its closed end on the ground, and leaning over the fire so that it does not burn through.

All the methods of preserving food known to civilized men are represented by similar processes among savages. The latter do not can provisions, but they cover them with mud, coat them with tallow or bury them in the earth. They smoke, salt, and freeze. They dry fruits in the sun and meat in the sun or over fire. They boil, dry and pulverize green corn, or they bake it in pits until it loses its moisture while preserving its flavor. The sap of the cocoa tree is boiled into a syrup by the Gilbert Islanders and by some Africans.

Fish are dried, beaten into a powder and packed away in sacks by Columbia River Indians, Kamtschatkans and various tribes of Africa and South America. It is said that in the valley of the Zambesi, fish is preserved for years without loss of its wholesome and nutritious qualities, by covering it with the poisonous juice of the mandioca.⁹

After drying the meat of the buffalo, the Redmen pack it in a bag of hide, which they fill with melted tallow. This pemmican keeps more than a year.¹⁰ In California grasshoppers and in parts of Africa grasshoppers and winged ants are singed, cleansed of wings and legs and mashed into cakes. Locusts are treated in a similar manner by Kaffirs.

The Redmen east of the Mississippi dry plums, persimmons, pumpkins, green corn, deer meat, muscles, oysters and eels. They boil the sap of the maple tree into a syrup, into a wax-like candy, and into crystallized sugar. Near Lake Superior, the pulp of wild plums is boiled with maple syrup until it will harden when cold, and is then called maple-plum-leather.¹¹ Plum leather is made by boiling the plum pulp without syrup. In the same region, wild cherries are boiled down to a cherry-butter which is buried in the earth for winter use.¹² Green maize is boiled, dried and pulverized by the Redmen east of the Mississippi. The Chippeways dry whortleberries and wild roots over a fire.¹³ The Californians soak their acorns in two waters to take out their bitterness and then dry them.¹⁴ Sweet potatoes are dried by the Maoris, and ombova leaves by the Damaras.

Many fruits and tubers which are poisonous in their natural condition are converted by savage art into wholesome food. The cassava root abounds in a strong poison, which comes out when the fibre has been rasped, and freed from its juice by pressing and boiling in two waters. Of all the tropical tubers it is the most extensively used for food. The discovery of the method of fitting it for the table, and the invention of the processes of rasping and pressing it, do much credit to the ingenuity of the South American Indians.¹⁵ Among the other poisonous

or acrid vegetables made nutritious by savage processes of cooking or soaking, are an African yam, the Tangare bean of South Africa,¹⁶ the karaka berry of New Zealand,¹⁷ the arisarum vulgare root of Morocco,¹⁸ a tuber of Virginia and another of Utah, the leaves of the taro;¹⁹ the root of the ti,²⁰ the soaproot and the horse chestnut of California, and the cycas fruits of New Guinea.²¹

SEC. 31. *Meals*.—In most savage tribes, it is the custom to have two formal meals in the day, the breakfast in the middle of the forenoon, and the dinner about sunset, but some tribes have only the latter, eating at other times as hunger and the food supply may suggest. Having no chairs, tables, tablecloths or plates, their manners at meals are unceremonious. The men eat by themselves; the women and children afterwards. If there is a cooking pot, it is usually left on the fire or near it, and around it the eaters squat or sit down. With unwashed hands they reach in, drag out the meat, and throw it back after cutting off a portion or tearing it off with their teeth. The pot and the cook are seldom washed. Forks are used with human flesh in Fiji, and spoons with porridge and soup by the Redmen, but are unknown to savages generally. Poi or taro porridge, a favorite dish in Polynesia, is taken from the bowl by a quick turn of the figures and then held over the open mouth which catches the drip. According to its thickness and the method used in getting a mouthful, the dish is called two-finger or three-finger poi.

SEC. 32. *Grinding*.—Seeds and nuts are crushed or ground for bread or porridge in mortars or on flat stones. The mortars are hollowed out in loose stones, in the bed-rock where it appears on the surface of the earth, or in the stumps of trees. The movable stone mortar has its

place by the domestic fire, and like the latter is under the charge of the woman, and adds to her social influence.¹ Numerous half oval stones, shaped by hand by prehistoric savages, were presumably used for crushing seeds.² In the Soudan, a woman grinds in one day as much grain as a man can eat in six days.³

SEC. 33. *Water and Milk*.—Although many tribes are in the habit of preparing fermented liquors, still the common beverage, at or rather after meals, for while eating they rarely drink, is water, which they get at some adjacent stream, lifting it to the mouth in the hollow of the hand, bringing the face down to its level, or wading in and flinging it into the mouth by a rapid motion of the fingers. The process last mentioned is common in New Caledonia and Kaffirland.¹ In some arid regions, savages show much ingenuity in finding and storing water. The Bushmen have learned that they can suck up water through a reed from sand several feet below the surface, where there is so little moisture that if a well were dug no water would collect in the hole. If water is wanted for future use, a woman fills her mouth, the contents of which are then allowed to trickle down a straw into a small hole in the empty shell of an ostrich egg. Such shells are buried at marked spots on a long journey in a desert, for use on the return.² Roots abounding with moisture are found by the Kaffirs with the help of thirsty tame apes, which, led about by a string, hunt for the scent of the water-root until they find it, and then begin to dig, whereupon the master unearths the prize and rewards the finder with a portion.³ Africa also has a water tree, which preserves the precious fluid in its cavities and yields it up to the experienced traveler. Among the Eskimos one of the occupations of the

women is the melting of snow over a lamp, to furnish water for drinking and cooking. Washing is a rarity, and when that operation is applied to the face another liquid is used.

Modern savages have no milk-yielding animals save those obtained from men in higher conditions of culture. The cows and goats of the Africans are not indigenous in their continent, or certainly not in the equatorial or southern portions of it, and were presumably obtained from Western Asia.

The wealth of the Kaffirs and of many other African tribes is mostly in their cows, and for them cow's milk is the staff of life, as camel's milk is for some Arabs; mare's milk for some Central Asiatics; and buffalo's milk for some tribes in Hindostan. All the milk-drinking African tribes milk into wooden buckets or water-tight baskets, which are never washed, and from which in a few minutes a sour fermentation is communicated to the liquid. When away from his milk buckets, the African may suck the sweet milk from the cow, but he prefers it sour.⁴ The Kalmucks do not drink their mare's milk until it has turned sour.

SEC. 34. *Beer, etc.*—In lands where the cocoa-nut grows, its juice is a favorite drink, equally palatable and nutritious. The fresh saps of the maple, birch, palm, and American aloe are used as beverages, but are too insipid to reach high favor, and are more prized for fermentation or for conversion into syrups by boiling. The Soudanese have a nutritious and acidulous drink called abrey, made by mixing doora (which has been ground, made into dough, allowed to turn sour and dried) with water.¹ In the valley of the Amazon, the nut of the guaraná tree is made into paste, dried, grated, and mixed with water

to make a common and much prized drink. The paste sometimes sells to civilized visitors for sixteen dollars a pound.² The Australians drink an infusion of the blossoms of a species of eucalyptus. Whether savages originated the use of any hot decoction as a beverage is doubtful. No hot drink was in use among the savage tribes of Africa, America, or Polynesia when they first became known in modern times to European travelers.

The natives of the arctic and subarctic climes drink the oil of fish and marine mammals, either fresh or rancid; and some tropical savages drink butter which after being well boiled and skimmed, is a liquid at a warm temperature and remains sweet for a long time.

Fermented drinks are unknown to the Australians, Fuegians, Patagonians, Eskimos, and most Redmen in their aboriginal condition, but are extensively used among most other savages. Beers, if that name may properly be given to such beverages, are made from the saps of the cocoa palm, date palm, sugar cane, and American aloe, from the milk of the cocoa-nut, from the juices of various berries and fruits, from infusions of honey, from various tubers and grains.³ Some African and South American savages make their beer from grain which, after sprouting, has been killed by heat, a process perhaps learned from civilized men. In Africa and South America maize and cassava cakes, and in Polynesia and the West Indies sweet potatoes are chewed and spit out into vessels in which the masticated material with some water is allowed to ferment. The beer thus made is considered much superior to that prepared from the same material without saliva.

The favorite and only stimulating drink of many Polynesian and other Pacific islands is made from the ava

root, by spitting the masticated material into bowls (the weight being doubled by the saliva)⁴ adding water and straining. The liquid without fermentation is then immediately ready for drinking. The flavor is compared by one European to soapsuds with a touch of essence of ginger;⁵ by another to a mixture of rhubarb and magnesia.⁶ In small quantities the effect is exhilarating; in large quantities, intoxicating. When much used for a long time it causes a skin disease suggestive of leprosy. It is a sacred beverage prohibited to women and slaves, prominent in religious festivals, and never prepared except with solemn ceremonies, including an invocation and libation to the gods.

SEC. 35. *Narcotics*.—Tobacco, now the leading narcotic of the world, was known in the time of Columbus from Patagonia to Hudson's Bay. The aboriginal Americans smoked it in pipes and cigars, chewed it, and snuffed its dry powder or its infusion into the nostrils. The use last named has been adopted as an original discovery in Ujiji, Africa.¹ The dried leaves and bark of many other plants were smoked by certain tribes of Northwestern America which did not possess tobacco.²

The favorite narcotic of the Malays and of various other races inhabiting the islands or mainland near the Malay archipelago is the betel nut, the name given to the quid prepared by sprinkling powdered lime on the pared nut of the areca palm, and wrapping it in the leaf of the betel pepper. Tennent, who studied its effects in Ceylon, thinks that "no medical prescription could be more judiciously compounded than this combination of the antacid, the tonic and the carminative" to supply the nitrogen lacking in the ordinary food of many rice-eating Asiatics.³ Lime is an important part of the betel-

nut quid, as it is also of the coca-leaf quid of Peru, of the gambier-leaf quid of Mandaheling,⁴ of the tobacco quid of South Africa,⁵ of narcotic-leaf quids of the Thlinkets,⁶ some Californians, and some South Americans,⁷ and of a narcotic snuff of the Otomacs.⁸ For chewing, tobacco is mixed with soda by the Wadai, and with ashes by the Somali.

In Central Africa, the bitter and astringent kola-nut is chewed for its stimulant influences. Among the Fulahs it is offered to male guests, as is a cigar in Europe.⁹ In the basin of the Amazon, paricá snuff, prepared from the ashes of three plants gives a brief but convulsive intoxication.¹⁰ Among the Hottentots, delirium and unconsciousness are produced by chewing the kanna root. Besides their fungus, the Kamtschatkans use the leaves of a willow-like bush to produce intoxication;¹¹ and the Oloochees eat a kind of hemlock for the same purpose.¹²

In South America, the stimulant effects of the cocoa leaf are obtained by chewing it or by drinking its hot decoction; and in Abyssinia and Arabia the leaf of the kaat (*Celastrus edulis*) is used in the same methods for the same purpose.¹³ The Chaymas chew a leaf which first exhilarates and then stupefies,¹⁴ and the Australians are similarly affected by eating pitcherie leaves.¹⁵

Opium, the strongest of the narcotics, is eaten or smoked by relatively few savages and those mostly in the Malay archipelago. The opium poppy was cultivated (probably for its seeds which are not narcotic) by the prehistoric lake-dwelling savages of Switzerland. Next to opium in strength, and to tobacco in extent of consumption, is hasheesh or bhang, which has spread from Hindostan over many islands near Asia, and over much of Africa. In a remote antiquity the Hindoos

chewed its leaves ; and the Scythians intoxicated themselves with its fumes in their religious ceremonies. Another strong narcotic, a Kamtschatkan fungus, causes convulsions, and is used in a disgusting natural distillation.¹⁶ A similar distillation with delirious influences is familiar to the Cape Flattery Indians.¹⁷ The Angolese also have a narcotic fungus.¹⁸

SEC. 36. *Hunting*.—Many savage tribes are skillful hunters. Dependent on the chase for much of their food, they have carefully observed the habits of wild animals, and have mastered the arts of taking them by nooses for the neck or foot, catching in pitfalls, luring by decoys and imitation calls, surrounding, driving into pens, nets, or narrow ravines, or over precipices, and killing by poison, by fire, by set spears, by falling lances, and by spring bows. All the traps and weapons made without metals are known to them. They attack and kill the lion, the tiger, the elephant, the rhinoceros, the hippopotamus, the buffalo, the grizzly bear, the white bear and the crocodile without fire-arms. The largest beasts are slain by setting fire to the dry brush or high grass in which they are sometimes found ; or by letting a heavy lance fall from a trap. For the white bear, a strong piece of whalebone with sharp ends is bent double, and tied together, wrapped with strips of meat or blubber, and exposed to freezing cold. The meat when frozen being strong enough to hold the whalebone in its bent shape, the string is cut, then the bait is set for the bear, and soon after he swallows it, the meat loosens and the whalebone straightens, cuts through the stomach and kills the game.

The elk, the deer, the moose, the African and American buffalo, and many other quadrupeds, and the ostrich,

allow hunters disguised in the skins of their respective kinds to come near enough for fatal shots. Many tricks are used to attract game into places where it can be killed. When a buffalo calf is attacked by a wolf it utters a distressful bawl which calls to its aid all the herd within hearing. The Indians take advantage of this habit. One Redman dressed as a buffalo calf, attacked by another dressed as a wolf, bawls and draws a herd into an ambush or pen.¹ The savage hunter, knowing the curiosity of the antelope, lies on his back in sight of his game and waves a stick with a colored rag at the end until one of the herd comes near enough to be shot.² The Aleut lies among rocks, showing only his head covered with a seal-head mask and, by the call of the female seal, attracts the male within killing distance.³

Converging fences of brush or net several miles long⁴ are built leading to narrow ravines, pits, precipices or inclosures, and a whole tribe with hundreds of men assemble on an appointed day to drive the game to the fatal place. The Shoshone Indians have no material for high fences, and they undertake drives only when a soft, deep snow or deep mud, makes the antelope averse to high jumps. The game in the inclosure is chased until tired out and then killed with clubs.⁵

The Derr negro gets fresh meat by catching a poisonous serpent, punching its tail, passing a cord through the hole and tying the serpent in a trail frequented by antelopes on their way to water.⁶

SEC. 37. *Birds*.—On the coast of Northwestern America, a net is stretched across a narrow opening in a forest, on a route of ducks and geese, flying from one body of water to another. The fowl scared in the twilight, fly against the net, which is hidden from them by the smoke

from a smouldering fire. When they fall to the ground, they are immediately captured by the watchful savages.¹ Similar nets are used in Polynesia.² In California, a net thrown across a stream is supported by high poles, to one of which it is fastened, while the other end is allowed to slide down till the net lies in the water. When game worthy of the trouble comes, a quick pull on the loose rope raises the net, and the bird striking it, falls into the water and is there caught by the hunter.³

The Tungoos sets a net in shallow water over fish roe, and the duck diving for his food, is caught in the mesh. At a place frequented by birds, the Eskimo builds a snow hut with a small opening through which he can thrust out his hand to catch and pull in his game.⁴ The Australian lies as if dead with a fish in his hand, and thus catches the hungry bird.⁵ At Lake Winnipeg, it was observed that ducks approached a shore on which a dog ran backward and forward; so dogs are trained to make such movements, while the master is hidden near enough to shoot his birds.⁶ The Tongan ties a male bird near a light cage containing a hen, in a place where they will be seen and heard by wild birds of the same species, and where from a concealed position he can shoot the game attracted by the calls and movements of the captives.⁷ The Lower Californian catches a pelican, ties it fast to the beach, and then issues from concealment when compassionate pelicans bring pouch loads of fish to the struggling captive.⁸ The Hawaiians and Veddahs catch small birds with birdlime.⁹

SEC. 38. *Fishing, etc.*—In spearing large fish and aquatic mammals, the savage observed that if the point of the weapon were firmly fastened to the shaft, the weapon would often be thrown out of the wound or broken; and he de-

vised a loose point attached to the shaft by a cord in such a manner that so soon as the pull is felt, the point turns crosswise in the flesh.¹ The game is not only held more securely but the shaft becomes a buoy to exhaust the strength of the game and to indicate its place. Seal arrows are attached to the point by two strings, one running to each end, so that the swimming animal has the heavy drag of the arrow crosswise in the water. Bladders full of air are attached as floats to the harpoons used in killing whales, seals and other aquatic animals.

Fish can be seen at a depth of forty feet in clear water through holes cut in ice, and at that depth sturgeon are speared in Lake Superior. The game is attracted by the bait of imitation fish to the best place.² Spears seventy feet long are used on Puget Sound to strike fish felt and not seen.³ The Haidahs have a lath fifteen feet long with barbed nails for striking the water in a shoal of oolakans, and catch a dozen at a blow.⁴

The Andamanese shoot fish with loose-point arrows. Many tribes spear fish at night from a boat carrying a torch. In Georgia, after the fish approach the light, the river is beaten with a bush, and many of the frightened fish jump out of the water, to fall into the boat. The turtle of the Amazon is killed by an arrow which having been shot up into the air, falls vertically on the animal's back and thus can pierce his hard shell.⁵ In some of the Australian waters, a sucking fish, fond of attaching himself to the turtle, is tied to a long cord and allowed to swim off to a turtle, which is then drawn to the fisherman's canoe and dispatched.⁶ Savages have dip nets and seines, some of the latter several hundred yards long. In casting his seine, the Kanembo of Lake Chad sits on a pole attached at each end to a gourd buoy.

This allows him to sink to his waist in the water, leaving his arms out, so that he can use them freely.⁷ The seine knot of the Maoris is the same as that of the modern Europeans.⁸ In Georgia and portions of South America an Indian dives with a net, and comes to the surface with a fish in it.⁹ In Australia and California, the native dives with a spear and brings up a fish on its point.¹⁰ The Patagonian, Carib, Brazilian, Maori and Andamanese dive and catch the finny game in their hands.

Savage fish traps are of many kinds. One of the most curious is found in New Britain. Made of rattan, conical in shape, and a little heavier than water, it has at the sharp end a string and a wooden float. A stone a little heavier than the float is laid on the string, and when a fish is caught its movement throws off the stone, and the float announces the capture.¹¹

The hook is so simple in construction and so effective in catching fish, that it is known to most savage tribes, but not to the Tasmanians, the Lower Californians and the Chippeways.¹² The savage hook made of bone, shell, wood or stone is necessarily clumsier than the metallic hook. The barb is sometimes lacking and sometimes is attached to the shaft, not to the point. In several Pacific Islands the native hook is considered superior to any other for catching fish.¹³ In South America artificial flies, and in many Pacific Islands, imitation fish of lustrous shell, are used for bait.

Catching the shark with a noose is a favorite amusement in many parts of Polynesia and Micronesia. When gorged with food, he likes to sleep or doze in a coral cave, where he may frequently be seen from a canoe. If out searching for something to eat, the savages throw packages of food, consisting of a mixture of fish and

vegetables, sometimes with an addition of the narcotic ava, which stupefies brute as well as man. When gorged and perhaps partially intoxicated, the shark lies on the sand or goes into a cave ten or twenty feet below the surface. A diver slips a noose over the projecting tail of the game, and if the head instead of the tail be at the mouth of the cave, the diver taps him on the nose with a stick, whereupon the drowsy monster, to escape from the annoyance, turns round and presents his tail to his enemy.¹⁴ When the noose has been fixed, the diver rises, gets into a canoe, and then several canoes drag the game to the shore where it is killed. The gorging is sometimes done at night, and then the game is not dragged ashore until daylight, as the few intervening hours tend to render the shark more helpless. If the shark be large, the death scene on the beach is an occasion of great enjoyment for all the people in the vicinity.

The Gilbert Islanders catch the gorged shark with a tail noose, and also take the hungry shark with a head noose. In the latter case a baited hook attached to a small line drags behind a boat, and when it has attracted the attention of the game it is pulled forward until it passes through a noose of strong cord. The greedy shark follows, without observing the noose, which is suddenly tightened when his head has passed through. His career then soon comes to an end.¹⁵

The aborigines of New Britain rub cups of cocoa-nut shell together in imitation of the sound of the bonito fish, and when the shark is attracted by the noise, the fishermen slip a noose over his head and drag him up within reach of their clubs.¹⁶ The same fishermen sneak up to the large turtle in the sea and catch him by throwing a lasso over his head and one fin.¹⁷

Captive turtles are kept in lagoons for meat and eggs by the Cubans, Fijians, and Amazon valley tribes.¹⁸ Crocodile eggs are gathered, and allowed to hatch on the shore of a pond, in which the young reptiles stay until their masters, the Congoese negroes, see fit to eat them.¹⁹ Fish taken with the hook are carried to ponds where they can be caught easily whenever needed,²⁰ in Hawaii and Georgia.

The female herring likes to deposit her roe in shallow water on fir boughs, and on the coast of Northwestern America, the Indians put such boughs in the water, and from them get large quantities of the herring roe.²¹ In every quarter of the globe fish are stupefied by throwing vegetable narcotics or poisons into the water and are then easily caught.²²

SEC. 39. *Bees*.—For the purpose of finding the tree in which bees have their stores, the North American Indian puts honey on a small flat stone with white gum on the edge, to which the bee goes to get a start for his flight. Some of the gum sticks to him, distinguishes him from other bees, and shows his course direct to the hive. At the same time another Indian has done the same thing several hundred yards away. The two courses show the situation of the tree. The Australian bee hunter stuns a bee by squirting water on it, catches it, touches it with gum and white down, and follows it thus burdened to its home.¹

SEC. 40. *Villages*.—The non-tilling savages generally have no permanent villages. Without a stock of food for the next week, or in some instances even for the next day, they move about frequently in search of something to eat. In portions of Australia, Tasmania, and Lower California, there is not more than one inhabitant for sixty

square miles and a tribe or group of thirty persons occupy a district sixty miles long and thirty wide. Every year they make a circuit of their district, exhausting birds, quadrupeds, reptiles, vermin, insects, roots, fruits, seeds, and nuts in their round as they go, stopping a week or a day at a place. In other countries the natives might go to the rivers in the spring for fish; to the valleys in the summer for grass seeds; to the swamps in the early autumn for roots and aquatic birds; and to the hills in the late autumn for nuts, nut-eating birds and quadrupeds. Tribes which live on large game are in many cases nomadic because the animals on which they depend migrate or have different haunts at different seasons. The Dakotas, Crows and Blackfeet have stationary villages in the winter, but move half a dozen times in the remainder of the year, so as to be near the buffalo. At three hours' notice, their village can be on the road.¹ The only Indians with permanent villages in the basin of the Missouri river are the Mandans, and they are also the only tribe in that basin with tillage and with fortifications.

Many of the littoral tribes of Australia and Lower California, depending mostly or wholly on shell-fish for food, move as often as once in three months.

A village of non-tilling savages rarely has more than fifty inhabitants; one of tilling savages has usually at least three times as many, sometimes far more. Some of the Iroquois villages had each several thousand people. Hochelaga in Canada was laid out systematically with a well-constructed palisade wall.² The Maoris and many Africans have carefully-built fortifications. The Pelew Islanders, when first found by white men, had paved streets.³

SEC. 41. *Huts, etc.*—The Tasmanians,¹ Andamanese,² Bushmen, Lower Californians, Hill Veddahs, Fuegians, and some Piutes,³ Australians and Papuans never erect huts or tents, and have no better protection against wind and rain than mere shelters open on at least one side. The Bushman digs a hole at the side of a bush, or sets up a small mat, supported by sticks. The Australian makes a little shed with bark or bushes. The Fuegian shelter is a little better, but partly open. The Alforese of the interior of Ceram often spends his night in a tree-top, where he makes a little roof to keep him dry when it rains.⁴ The low savage in the interior of Sumatra, Borneo, and Luzon sleeps in the top or hollow trunk of a tree.

A structure too rude to be called a house, and too good to be styled a shelter, is the dwelling of most savages. Its covering is usually thatch or bark; its floor is always the ground. There is a hole in the roof but no chimney; and no window. The doorways in Central and Southern Africa are not more than two feet high, and to enter them the man must go down on his hands and knees. A Kaffir hut thatched with coarse grass on a frame of light poles, can be built by three persons in two hours; and such a structure can be given to the flames at the end of three months for the sake of getting rid of its insect occupants.

In extensive regions of Africa, every tribe has a peculiar hut pattern which may be recognized from a distance, so that a glance at a village informs the traveler whether he has crossed a tribal boundary. The shapes most common are those of hemispheres, half ovals, cones, and acorns. Each wife has a hut for herself and her children; the husband has none for himself; except at night and at

meals, he expects to find shelter in the assembly hut of the village.⁵

The Polynesian hut has a bamboo frame, a thatch of pandanus leaves, and open sides which can be closed with mats in chilly weather. In those North American regions where the birch tree is abundant, its bark furnishes a convenient covering for huts.⁶ The Pimas and some Australians make winter huts by covering their thatch or wattle with a thick coat of clay. The Mandan has a hut forty or even sixty feet in diameter, with a thick clay roof supported by heavy poles.⁷ Some Siberians have similar huts but smaller. The Central Californian has a pit-hut fifteen or twenty feet in diameter for his winter home.⁸ Stanley found pit-huts in Africa;⁹ and the Britons,¹⁰ while tilling savages, and the barbarous ancient Teutons¹¹ had such dwellings, and the Lapps have them now. Some Shoshone Indians go into burrows in the winter.¹²

The winter huts of the Eskimos are made of cakes of hard snow shaped with the knife, and laid up in the form of a low dome or section of a sphere. At the joints loose snow is pressed in and water poured on slowly in freezing weather until ice fills the space that was open. When the dome has received its shape, a piece is cut out to allow the insertion of a slab of clear ice as a window. The entrance is through a long, low passage which excludes the intensely cold outer air. The temperature of the interior must never exceed thirty-two degrees; so soon as it does the structure begins to melt. The only artificial heat used is that of a lamp.

Tents made of skin or felt, supported on poles are used extensively by savages. In North America the tent skins are obtained from buffalo, elk, moose and deer; in

Patagonia from the horse; in Eskimo regions from the seal, sea lion and walrus; in Siberia and Lapland from the reindeer. Felt made of hair is used for tents in Central Asia, the Sahara and some wooded districts of Africa. The covering is sometimes double or triple for protection against intense cold.¹³ The Kirghiz have matting under their felt.¹⁴

Dwellings supported over the water on piles exist now in Malaysia, Melanesia, Central Africa, the Aino district of Japan and the Kuki district of Hindostan. They were found in Venezuela and Vancouver Island by early European navigators. As early as 5,000 B. C., there were two hundred pile villages, occupied by tilling savages, in the Swiss lakes; and Herodotus mentions such villages as existing in his time in Southeastern Europe and in Western Asia.

In the valley of the Niger, the floor of the hut should be three feet above the ground to give protection against snakes, ants and moisture. On the southern shore of the Caspian and in portions of Africa and Melanesia, a height of at least ten feet is necessary to keep the sleeper above the range of certain troublesome insects. In Kimreland, the huts have floors twelve feet above the ground with space on them for goats, dogs and chickens. The Caribs have huts in trees forty feet up to escape the floods of the Orinoco; and the Murray Islanders have their homes fifty feet above the earth.

Houses each large enough to hold from five to twenty families, were common among most of the American tribes east of the Mississippi, and are found now among the Dyaks of Malaysia.¹⁵

In certain tribes of Africa, North America, Polynesia and Malaysia, custom requires every village to have a

large building for political, religious, social or hygienic purposes. Among the Mandans, this structure is exclusively ecclesiastical; among the Pueblos, it is ecclesiastical, social and hygienic, being used as a sweat or bath house at times; among the Mundrucus, it is the place where the warriors usually sleep; and among the Malays it is the repository for the scalp, jawbones, dried heads or other trophies of the village. In many tribes, it is used for entertaining friendly strangers. A hut built for the use of unmarried women and their lovers is one of the institutions of many African villages.

SEC. 42. *Furniture, etc.*—In ordinary savage life, the household furniture is scanty. The Australian, Tasmanian, Bushman and Californian sleep on the bare ground, with little or no covering in the coolest weather. Tribes a little higher in their culture have mats, bark, cloth and furs. The hammock, invented by South Americans as a protection against insects and moisture, is simple and serviceable, and it has the distinction of being the only piece of furniture adopted by civilization from savagism in modern times. The Polynesians, Malays and some Africans have a little wooden trestle for supporting the head or neck while sleeping.

The savage woman, in the migratory tribes, has a basket or bag for carrying tools, ornaments and food, and a flat stone or a mortar for crushing seeds. In the higher grades of savage culture, she has several earthen pots for cooking. She keeps oil in a skin, gourd, jar or hollow sea weed. In the Haoussa country jars for fat and honey are made by covering a lump of moist clay with rawhide, and sewing the seams tightly;¹ and in Kaffirland bottles for similar purposes are made by plastering a mixture of rawhide scrapings and blood

with a little clay over a clay mould.² Drinking cups of gourds, cocoa-nut shells and marine shells are found in a few tribes.

Spoons of buffalo horn or wood are used with soups and stews by many North American tribes. Boxes or baskets to protect grain from insects, mice and monkeys are made of a bitter bark by the Badema negroes; and grain sacks are made by other tribes from the bark of a tree. A trunk six inches thick is cut to a length of fourteen feet, the bark is beaten for a distance of eleven feet from the larger end, so as to loosen, and stretch it sidewise; it is then stripped back, and the eleven feet of bare pole cut off, leaving a sack about six feet long, and a foot and a half in diameter, on a pedestal three feet high.³ A considerable part of the furniture of the Bushman consists of the mats behind which or under which he sleeps, and of the ostrich egg shells in which he keeps water. The non-tilling tribes generally have no cooking utensils. Some savages of South America knew the peculiar properties of caoutchouc, and made it into rings and bottles;⁴ and tool handles of gutta-percha were in use among Malays before it was known to civilized men.

Savages generally have no artificial light save that from a fire. The pine knot is however used for a torch in hunting and fishing at night by the Redmen. The Malay torch for similar purposes is made with a lump of pitch or combustible gum in the end of a piece of bamboo. Oleaginous nuts on a wooden skewer serve as a substitute for a candle in Polynesia,⁵ and with a piece of dry bark through it as a wick, the oolakan or candlefish gives light at night to the Haidahs. A hollow stone, a wick of moss, and oil, obtained by chewing blubber, make up the Eskimo's lamp.

SEC. 43. *Baskets and Mats*.—Except in regions where the materials are lacking, no tribe is without baskets and mats. The aborigines of Central California are among the lowest of savages, and yet they make beautiful water-tight baskets in which they can boil porridge, throwing in red-hot stones for heat. The New Zealanders possess superior skill in making mats, for which an excellent material is furnished by their indigenous flax, and for which they have much need on account of the coolness of their climate, their ignorance of weaving, their lack of a tree from which they could make bark cloth, and the scarcity of large skins. Their only quadruped larger than a rat is the dog, and they have few dogs. They make mats for clothing, bedding, hut walls, hut partitions, sails and platters. Of their clothing mats some are waterproof, others are very light and a third kind thick and fur like. When the season for mat plaiting comes, the Maoris like to collect in parties, and while engaged in their work, listen to some bard who recites the legends and poems of their race. It is perhaps largely to these mat-plaiting parties, that they owe the wealth of their legendary lore. The tropical Polynesians having an abundance of bark suitable for cloth and no wild flax and, needing no warm dress, made mats for bedding but not for clothing. In America and Africa, where large quadrupeds furnish skins for leather, there is relatively little need for mats and few are made.

The Chippeway Indians, however, make handsome mats of reeds growing in the waters of Lake Superior. These reeds are cut at a certain season of the year, and are boiled for three-quarters of an hour to make them tough, then bleached, and dyed, and are plaited only in rainy weather or in the morning while the air is damp.¹

SEC. 44. *Dogs*.—Many species of mammals and birds are caught so easily; they attach themselves to man so readily; and he takes such pleasure in their companionship, that he must have begun, in a very early condition of his culture, to make pets of them. Such pets are found in most savage tribes. By the aboriginal North Americans the buffalo, the moose, the bear, the wolf,¹ the deer, the eagle, the crane, the crow;² the squirrel and the raccoon were tamed occasionally; by the negro tribes, the lion, the panther, the wild cat, the jackal, the antelope, the ostrich and the monkey;³ by the South Americans, the tapir, the peccary, the agouti, the monkey, the opossum,⁴ the parrot, the woodhen and the tortoise; the seal, and the kite by some Australians;⁶ and the cassowary in part of Melanesia.⁷ But in all these cases the object was to get a pet and nothing more. Such tame animals were kept without companions of their own species, and were not used to breed a stock of descendants, inheriting the habits and tastes of domesticity.

After the petting of individual brutes, the next step in the domestication of animals was the breeding of the dog, which on account of his keen scent and hearing, his vigilance, swiftness, intelligence, courage, and fidelity is valuable as a sentinel, as an aid in hunting and as a playmate for children. He requires less attention and labor in guarding and feeding than any other brute; he is more serviceable in the chase, and he is more prompt and efficient in defending man against other animals. In many countries, he not only supplies himself with food but brings some to his master. He learns to catch fish in the water; he scares fish into the net of the Fuegian; he serves as a beast of burden dragging the tent poles of the Missouri Indian, and as a beast of draught

when hitched to the sled of the Eskimo, traveling fifty miles or more in a day.

The dog is the most widespread of the domestic animals; he is found among the savages in every climate, in every continent, and on every large island. Where he is missing, man has no brute companion. The Andamanese, Tasmanians,⁸ some Micronesians, Aleuts,⁹ Bushmen and Californian tribes have no tame dogs. Among the tribes which have the dog and no other domestic animal are the New Zealanders,¹¹ the Niamniams, some Micronesians, and the savages generally of North and South America; and all these occasionally eat dog meat.

SEC. 45. *Pigs, etc.*—The pig was presumably the second animal in point of time to be domesticated by man, and was certainly the second in the breadth of area over which he was bred by savages. In most of the Pacific islands, he was the only tame quadruped besides the dog; in Asia and Africa he was common; in the Swiss pile villages of the stone age he was at home; but he was not known to the New Zealanders before Cook's time.¹ His stupidity, his sluggishness when well fed, and his ability to find food where many other herbivorous animals would starve, make him valuable. He was unknown in America, and the peccary, a kindred animal, found wild in the basin of the Amazon, would not breed except in its wild condition.

In many regions, the sheep, goat, cow and horse were not tamed until after the pig had been man's companion for centuries. The relative dates of the domestication of the chicken, the goose, the duck and the pigeon are unknown, but all were domesticated before men came into possession of metallic tools. The natives of Funafate, a Polynesian island, have tame frigate-birds which

when the winds are favorable, visit other parts of the group, and by tying things to the necks of these birds, at such times, presents are sent to distant friends.

SEC. 46. *Tillage*.—Tillage is the characteristic feature of higher savagism. Its introduction into culture was more important than that of stone-polishing, canoe-building, weaving or pottery, and was earlier in time and more fruitful in great results than the domestication of the ruminant animals. It gives to man a steady supply of food, a habit of providing for the distant future, the idea of accumulation, fixed residence, dense population, and higher political and military organization. It teaches him to live by the toil not of the day but of the year. It prepares the savage for a life of peaceful labor and constant industry.¹

The chief articles of cultivation are maize in North America and Peru; cassava and the plantain in the hot districts of South America; the banana in tropical Africa; the doora in South Africa; rice and the sago palm in Malaysia; taro in tropical Polynesia, and the sweet potato in New Zealand. In the time of Columbus, the Indians east of the Mississippi planted maize, beans, peas, melons, pumpkins, gourds, sunflowers and tobacco;² and though they did not plant the black walnut, the butternut, the shellbark hickory, the persimmon, the black mulberry and the wild plum, these trees were saved in fields where other trees were killed. Some tropical South Americans had cultivated the papunha, a fruit resembling an egg plum, so long before the time of Columbus that when white men first saw it, it was occasionally seedless.³ Long cultivation is also implied by the lack of seeds in the Brazilian breadfruit⁴ and in the Brazilian manioc.⁵

The Polynesians plant bananas, breadfruit, cocoa-nut, taro, sweet potato, ginger ava, and the paper mulberry. The Maoris make fences, dig up the soil with pointed sticks hardened in fire, and put sand on heavy soils. The taro in tropical Polynesia requires careful and liberal flooding. The Wanyikas cultivate a cucumber for its seeds from which they make a salad oil. As the North Americans have their fields of tobacco, so have the Africans theirs for Indian hemp, the Malagasies theirs for betel pepper,⁶ and the South Americans theirs for cocoa.⁷ Wheat, barley, flax, apples, pears and poppies, all brought from Asia, were cultivated by the Swiss lake dwellers in the stone age.

After it had been proved by experience that edible fruits, seeds and tubers could be obtained by cultivation, the spread of tillage was obstructed by nomadic habits, the difficulty of protecting fields against marauding animals, the disgrace attached to the man engaged in agricultural labor, the custom of treating all large stocks of food as common property, the dislike of steady toil, the general disposition to strive for nothing save immediate results. Although many tribes till the ground, the field work is done by women, serfs or slaves. It would dishonor the noble or freeman. The Creek warrior may gather the maize when it is ripe, but he must not plant it or hoe it. The Kaffir warrior drives the cows to and from the pasture, puts them in the pen at nightfall, lets them out in the morning, and milks them, but he must not touch the digging stick.

Many of the obstacles to the spread of tillage were removed by a strong political organization, in which chiefs defended property rights; by a strong ecclesiastical organization which sanctified slavery; and by a

strong military organization which repelled alien enemies, and kept a large stock of slaves in subjection. Protected by such institutions, slavery repaid them by giving them greater strength. It accustomed the masters to study and the slaves to practice steady toil; taught many distinct occupations; gave density of population; and made men familiar with the accumulation of large stores of provision and other property. It was especially prosperous in temperate climes where energy is not oppressed by enervating heat, and where the struggle of agriculture against the luxuriance of wild vegetation, is less difficult than in torrid regions. The temperate zone also yields most abundantly the nitrogenous cereals, containing a large amount of food for the muscles, in the smallest space, and in forms that can be preserved for a long time without change, and that can be transported over long distances with relatively little expense. As nutriment for men of high physical and intellectual energy, the typical cereals of the temperate zone—wheat, barley, rye, oats and maize—are far superior to the banana, plantain, breadfruit, cocoa-nut, taro, yam, cassava, sago and rice of the tropics, to the date of the subtropical lands and to the blubber of the polar regions. With the aid of tillage, culture began to move away from the equator, and its march in that direction has been continuous ever since.

Among the tilling tribes of the Redmen it was the custom that there should be one field near each village, and in that field every family should have a patch as large as it could cultivate. The record of DeSoto's expedition says he traveled for two Spanish leagues or more than five English miles in one field, the magnitude of which implied a dense population and general confidence in the security of property. Irrigation was not

used in America by savages ; it was applied in Polynesia, especially in the fields of taro, which without it would not thrive. The Maoris fertilized their fields and carried sand to mix with clay soils.

The cultivation of maize and tobacco did not arise simultaneously in all parts of America, but each must have started in a small district from which it was spread by savage enterprise over extensive regions ; as in modern times those plants and cassava have been carried by savages over much of Africa. The cocoa-nut, banana and various palms owe their introduction in many districts to the same influence.

Most hill tribes of Hindostan move their villages once in three years, and after tilling a field for a season or two, desert it for another. The abandoned tract is soon covered with bushes, which, after a good rest, are burned to enrich the soil and prepare it for another crop. Many negro tribes have a similar rotation of fields.⁸

SEC. 47. *Implements, etc.*—The simplest and probably the earliest implement, used in loosening the soil and preparing it for the reception of seeds, is the digging stick, a sharp pole, six feet long. Four or five of these are driven aslant into the ground round a circle a foot and a half in diameter, the points directed towards a common center, and the enclosed circle is pried up by concert of action. Such digging sticks are used in Africa. A great improvement upon this is made by using a flat pole or wooden spade with a cross piece near the point for the foot, such as was observed by Cook in the Tongan group and also in New Zealand.¹ Hoes are made in Africa, Polynesia and North America with blades of stone, shell, wood and bone ; and the shoulder blade of the deer was in common use for a hoe blade in

Georgia. Stone adzes were also much used as substitutes for hoes.

SEC. 48. *Milk-yielders*.—The pile-dwelling Swiss of the stone culturestep had the cow and sheep, and therefore the domestication of those ruminants belongs perhaps to savagism. The sheep was not indigenous in Europe and must have come from Asia, as perhaps did the cow. Whether, in other regions, the goat, ass, horse and camel were domesticated as early as the cow and sheep, is uncertain. The cow of the savage is a very different animal from that of the highly civilized man. To the Damara she yields three pints of milk a day;¹ to the European thirteen times as much.

The tame milk-yielding animal increased the stock of food and of property, contributed to maintain a denser population, provided a medium of exchange, and supplied nourishment to infants, which had previously depended exclusively on the mother's breast for three or four years.² When half of the previous period of lactation was cut off for the woman, and the drain for the other half much diminished, her social value rose. Her life was rendered easier. She became more attractive to her husband. She could rear more children. One of the chief excuses for polygamy was destroyed, and the domestic circle was strengthened.

The only use for butter among many African tribes is to anoint their bodies, and the ancient Teutons and Slavonians applied it to a similar purpose.³ In Kaffra-ria and other regions of South Africa, the dairy work and herding are done by the men.⁴ The cow, which was a common domestic animal of Egypt in 4,000 B. C., is superior to all the other ruminants as a milk-yielder, is unsurpassed for meat and for leather, and is

equaled by few animals in docility of disposition. The dromedary of Arabia, the camel of Bactria, the horse of Turkestan or Persia—called by the early Assyrians “the pack animal of the East”⁵—and the goat of Western Asia were presumably each first domesticated in their indigenous regions.

Our sheep has lost, more than any other domestic animal, its fitness for a wild life. Its dependence on man for food and protection, and the excellence of its meat and wool, secure favor for it among savages as well as among civilized nations. In low culture, its wool is not shorn but is plucked out as it was by the Romans in Pliny's time.⁶ The goat is better adapted than the sheep to bush-covered and steep mountains, and in portions of Africa uninhabitable for the cow or horse on account of the tsetse fly, and too warm for the sheep, the goat is the only milk-yielder.

The cow, horse, camel and buffalo are used for burden but not for draught among savages, but their chief value to them is for milk and meat. A small herd of either of these animals is sufficient to maintain a savage family, and its possession stimulates its owner to adopt habits of economizing and providing for the distant future. He studies the habits of his beasts, learns to treat their diseases, erects shelter and stores food for them, becomes skillful in training them, trades with them, makes them a source of accumulating wealth and rises more and more above the rude modes of life prevalent among the lowest savages.

SEC. 49. *Boats*.—The simplest form of the incipient boat is a floating log on which a man sits astride propelling himself with legs and arms. On such supports, Australians visited European ships in the last century.

The next step in the art of navigation was to fasten two or more logs side by side, or to tie a number of reeds or canes together in a raft. A great advance was made when some man hollowed out a log, to reduce its weight, increase its buoyancy, and make a dry place for himself, his food, his weapons, and his clothing. Such boats with square ends, and semicircular bottoms as if made from a tree trunk split through in the middle, have been found in European mounds. One such boat had two handles at each end, so that it could be carried conveniently on land.¹ The next improvement was to sharpen the end so that the boat would move easily through the water; and another was to change the shape of a cross section from a semicircle to the transverse section of a long oval.

Many modern tribes never learned to make anything better than a raft for navigation. Among them were the Californians on San Francisco Bay and its tributaries, the Tasmanians and many Australians, though all of them had easy access to large trees well suited for canoes.²

The boats of savages may be classified as dugouts, plank canoes, bark canoes, and skin boats. The dugouts are made from the trunk of a tree with the aid of fire, by the Andamanese, the Redmen east of the Rocky mountains south of latitude forty-two degrees, and many others. Pitch is put on the wood to be burned out and wet clay on that to be protected.³ Stone axes are used in cutting away the charred material, and several men work for months in making a small canoe.⁴ In recent years, dugout canoes sixty feet long and six feet wide have been made by the Haidahs,⁵ who after doing all the other work, use hot water to make the wood pliable, so that they can give the desirable width to the upper part of the sides.

Bark canoes are used on the St. Lawrence and its tributary waters, the upper Mississippi, the upper Missouri, the Yukon, and many other streams of Northern America; and also in Guiana,⁶ Ugogo,⁷ and parts of Australia.⁸ A tough and flexible bark, such as that of the birch—perhaps the best of all barks for canoe purposes—is peeled from the tree in a single piece, sewed together at the ends, covered with pitch at the seams, and stiffened with a light wooden frame.⁹ A birchbark boat carries ten times its own weight, will last for three or four years and can be made by one man in a week. The Maoris have canoes of wood and also of mats,¹⁰ and mat boats are made in California.¹¹

For the savage, without metallic tools, it was far more difficult to make a plank boat than a dugout. He could not saw out a board; he had no accurate scale of measurement; and he had no nails. Nevertheless he accomplished the task. He made planks by burning and chipping with a stone adze; he fitted the pieces together by his eye; he sewed them together with twine or rattan; and he covered the seams with pitch. Thus he made boats thirty yards long and two wide, with room for more than a hundred men. The largest plank boats of savages in stone culture were those of the Fijians and Polynesians. The Micronesians, Malays and Fuegians make their boats in the same manner, but the Fuegian boats are small.

Boats of skin stretched on wooden frames are made by the Missouri River Indians, by the Abipones of South America, and by the Eskimos. The boat used by the Eskimo for seal hunting is admirably adapted to its purpose, and is one of the wonders of marine architecture.¹² Although, so small that it cannot carry more

than one person, and that its upper surface is only six inches above the water, yet in it the Eskimo can venture far out to sea in rough weather. It has a close deck, with which the dress of the boatman is so connected, that the water can wash over him without getting into the boat. For propulsion, the chief dependence is the paddle. The oar and scull are known to few savages. A sail of matting or of skin is used by the Pacific Islanders, Malays, Caribs, Floridians, and some African tribes.

The outrigger, a substitute for ballast, peculiar to the aborigines of the Pacific and Indian oceans, is a log or bamboo stem resting in the water, parallel with the canoe, six, eight or even twelve feet from it, and attached to it by crosspieces above the level of the water. The outrigger is on the windward side, and in case of change in the wind or in the course of the boat, the sail and perhaps the mast is shifted. When the breeze becomes so strong that the outrigger is lifted nearly out of water, men go out on it or weights are placed on it to preserve the equilibrium. Alone among the Polyynesians, the Maoris had no outriggers.¹³ The Samoans considered it impossible for sail boats to live in a rough sea without them, and they wondered at the prediction of one of their priests in the last century, that a large boat, without an outrigger, would arrive with people different from any they had ever seen.¹⁴ A pole projecting out to windward serves instead of an outrigger in small canoes.¹⁵ The Solomon Islanders have a double outrigger, that is, one on each side of the canoe.

The Tahitians, New Caledonians, Malays,¹⁶ and some Congoes¹⁷ occasionally attach two canoes together, side by side, but from six to twelve feet apart, either with two cross-pieces or with an intervening deck.

Rude as are the Polynesian boats, many of them make voyages of more than a thousand miles, sailing from Tahiti to Hawaii and back with confidence based on experience, and trusting to the stars for guidance. The Micronesians and Malays make similar voyages. To such ventures much of the original settlement of the Pacific isles is due. The Indians of Florida sail in their boats to the Bahamas.

The sled, the only vehicle made by savages for land transportation, is used by them only on snow or ice. Constructed of wood or bone, and weighing perhaps not more than twenty pounds, it can carry a load of two hundred. It is drawn by reindeer or dogs, and the only harness is a single rope or trace for each animal; for the reindeer a cord is attached to his head. The cart wheel was unknown to the Americans and Polynesians when these people were discovered by the modern Europeans.

SEC. 50. *Pottery*.—Pottery was unknown to the Polynesians who had no potter's clay, to the Eskimos who had no fuel for kilns, and to the non-tilling savages generally. In shaping their clubs, spears, paddles and poles, as in making canoes, mud was used to protect portions of the wood from burning. Such applications suggested that wet clay should be plastered over a basket or a gourd that was to be set on a fire to heat water. In 1503, Capt. Gonville found South Americans boiling water in wooden pots so protected.¹ Gourds and baskets for use on the fire were covered with clay in Australia.² Pots were moulded over gourds in Georgia,³ and others bearing the marks of the baskets on which they were moulded have been found in Illinois, Georgia, and Brazil.⁴ Indeed this method of shaping pots was not abandoned by the Cherokees when white men first

became familiar with them. Some of the pottery of the tilling Swiss lake dwellers was marked with the thumb-nail in imitation of basketwork, suggesting that pots had previously been made in or over baskets. A considerable advance was made; it was found that the clay could be shaped and burned as well without a wooden frame.

Many different materials were tried. Some clay cracked in drying; some broke very easily after being burned. Different kinds of clay were mixed together, or silicious or calcareous matter was added to the paste.⁵ The Kaffirs make pots of the hills of the white ants.⁶ The Redmen generally burn their pottery in the open air; among the tribes which understood the advantages of the oven were the Arowaks of South America.⁷

Out of burned clay the North American Indians made pipes, idols, cups, water bottles, jars, and cooking pots, including some holding ten gallons or more for boiling down maple-sap or salt water. Large pots to be used over a fire had holes in the sides for a suspending pole which was protected against the flames by wet clay.⁸ The Fijians made jugs with hollow handles for spouts.

Soapstone or steatite was fashioned into cooking pots in Maryland, Pennsylvania, Delaware, New Jersey, New York, Michigan, New England, in Catalina Island, and in the land of the Eskimos. The Eskimos also make pots of flat stones on which they build up a rim of other stones fastened together with a cement compounded with grease and lampblack. The Aleuts make pots with rims of clay on a bottom of stone.⁹

SEC. 51. *Thread, Cloth, etc.*—The art of spinning is known to all savages. The Australians practice it in its rudest form; they twist the fibers by rolling them on the knee under the hand.¹ The Redmen and the more

advanced tribes use a spindle with a weight or whorl attached to save labor. The sinews of large mammals are split up into fine threads, but they are not well suited for use in garments or weapons often exposed to the water, and for these, thread of vegetable fibre is preferred.

Sewed clothing is unknown to savages generally, but is found among the American Indians east of the Rocky Mountains, who wear sewed leggins, moccasins, and cloaks. It exists also among the Eskimos who use the needle in preparing all their garments. Some of the Eskimo thread made of whole sinew is as delicate in fibre as fine sewing silk. The prehistoric European cave dwellers lived in a subfrigid climate and had bone needles suggestive of sewed clothing.

In Polynesia, Micronesia, Melanesia, and portions of Central Africa and South America, cloth made of bark is used for clothing and bedding. In Polynesia it is made from paper mulberry saplings about two inches in diameter. Each sapling supplies a piece of bark about six inches wide and six feet long. After the hard outer coat has been scraped off, the bark is beaten till it spreads out to a width of two feet; several pieces are glued together at the sides; the joints are beaten till they are invisible; and the manufacture ends with printing in colors and varnishing. Such cloth, though easily torn and soon spoiled when exposed to the rain, is produced with little labor and is well suited to the wants of a tropical climate.

In its origin, weaving was much later than spinning. It was unknown to the non-tilling savages generally, and also to the Polynesians, Melanesians, Fuegians, Kafirs and many other Africans, and though known to

many North American tribes, was little practiced among them. The simplest weaving known was done by the Nootka Indians with unspun fibres of fir bark. The same process was known to the various other Redmen, and also to the tilling savages of the Swiss pile villages. The Haidah Indians beat the inner bark of the cedar tree, spin it and weave it. They, and many other tribes, pluck or shear their dogs every spring for the wool. Cloth is made of buffalo hair in the basin of the Mississippi.

The cloth of the savages is usually made by hand weaving or stick weaving—that is, the tram is passed under and over alternate warp threads by the fingers or by a stick. The Chippeways had an upright frame with horizontal rollers about five feet long and four feet apart. A single thread wrapped over these rollers formed the warp, and after the tram had been woven in, a cut through the warp made a piece of cloth five feet wide and eight feet long. The device of raising all the alternate threads at one movement and lowering them at another, so that the tram could be passed rapidly from side to side, was known to very few savages, and the shuttle to none.

In portions of America, a mat-like cloth is made by cutting the skins of rabbits or wild geese into strips,¹ and then plaiting these strips together. In Tahiti and Hawaii beautiful feather mantles, to be worn by the high chiefs, are woven. A thin flexible mat serves as a basis and, on the outside, is hidden by the feathers.

SEC. 52. *Leather*.—The process of tanning with astringent substances is certainly unknown to most and perhaps to all savages save those tribes which have learned it from nations in a higher culturestep; but

many tribes are familiar with other modes of dressing hides so as to make them soft, pliable and warm for purposes of clothing. Stretching, scraping, rubbing, chewing, smoking and soaking with various liquid or semi-liquid substances, are among the methods employed. The skins are rubbed with brains of buffalo or deer by the North American Indians;¹ with chewed liver by the Patagonians;² with clotted milk and flaxseed by the Abyssinians;³ and with willow bark and a fetid liquid by the Chookchees.⁴ The seal skins of the Eskimos are rendered pliable by soaking in household lye followed by chewing. In the Soudan, hides are made waterproof with milk.⁵ The Monbuttoo Africans are distinguished by their ignorance of all methods of dressing hides into leather. Out of salmon skin, the Chookchees make a leather for woman's clothing.⁶

SEC. 53. *Traffic*.—The aboriginal Californians generally, the Australians, the Tasmanians, the Andamanese, the Bushmen, the Fuegians, and other non-tilling savages have no medium of exchange, no professional trader, no habit of depending on traffic for acquiring any necessary of life, no custom of assembling for commercial purposes, no accumulation of articles intended for barter or sale, and no such division of labor that any man could consider himself secure from the toil of hunting up food for himself. The first separate occupation seems to have been that of the priest; next, perhaps that of the knife maker, and then of the chief.

Unless brought into contact with people in a higher culturestep, there is very little traffic among non-tilling savages. The mounds of Central California contain few articles brought from distant regions. But the tribes in New York had obsidian knives from Mexico; those in

Ohio had redstone pipes from Minnesota, and copper from Michigan; those in Tennessee had marine shells and shark's teeth from the Atlantic; and those in many districts east of the Mississippi had greenstone axe-heads and chert arrowheads brought from distant regions.

As mediums of exchange, we find cowries in Western Africa¹ and New Britain;² shell beads or wampum east of the Mississippi and in Northern California,³ salt in portions of Africa, various ornaments of shell or crystal in other parts of the world, and domestic animals wherever they exist. Coin is not a product of savagism.

Fairs, for purposes of traffic, are common in many tribes of the Pacific, of Africa, and of Malaysia, and are held at regular intervals. Such gatherings in the Hawaiian and Fijian groups attract visitors from distant islands. In some portions of Polynesia, the privilege of trading with people from a distance belongs exclusively to the nobles; in others to the chiefs.

SEC. 54. *Metals*.—The Australians, Tasmanians, Pacific Islanders, Californians and many other savages, when first observed by civilized travelers, had no metal. Some American tribes east of the Mississippi had pieces of native copper which they had pounded into knives, chisels, arrowheads, spear heads, awls, daggers, and ornaments. They know nothing of the arts of smelting or casting metals.

Gold has been used for ornament by several tribes which could not melt it, but could shape it by hammering. Meteoric iron, though known to savages, was unmanageable for them. From barbarous or civilized visitors, many African tribes have learned the arts of smelting and forging iron, but its possession has not sufficed to raise them out of the general customs of savagism.

SEC. 55. *Industrial Achievements.*—Having thus considered the industry of savages in its details, let us look back for a comprehensive idea of their contributions to the useful arts. They made themselves familiar with the habits of animals and the qualities of plants and minerals. They tried every kind of stone to see whether it would make good knives, and every kind of wood to find whether it would do for kindling sticks, bows, spears and canoes; and every kind of fibre to make twine. They discovered the palatable and nutritious character of all the products now used as food. By cooking, soaking, or grating and pressing, they converted many vegetables, naturally poisonous, into wholesome food. They invented all the main processes of cooking. They grilled, baked, boiled, and stewed. They preserved food by drying, smoking, salting, freezing, covering with melted fat, and by burying in the ground. They prepared hard seeds for food by grinding in mortars, and by soaking. We owe the idea but not the modern pattern of mill, oven and cooking pot to our savage ancestors.

They observed the stimulant or sedative quality in every narcotic plant now in use. They are possibly and in most cases certainly entitled to the credit or discredit of first making use of tobacco, betel, opium, hasheesh, coca, kola-nut, ava, Kamtschatkan fungus, maté, cocoa, coffee, and tea. One of the latest of these narcotics to come into use was coffee, which began to attract attention in the Middle Ages among the Arabians, who heard of it from the Abyssinians, and they were induced to try it by a traveler from Central or Western Africa, who while there had tasted a decoction made from a similar bean but of different species. The Swiss pile dwellers in the stone age drank warm decoctions,

and it is possible, though not proved, that the Paraguayans did so too before the time of Columbus. Savages extracted, by chewing from raw leaves and seeds, a little of those stimulating alkaloids which we obtain, in greater quantity and more palatable form, by steeping in hot water.

They learned how to make and to polish edge tools of stone, and in every region they used the stone that combined in the highest degree, the qualities of desirable fracture with toughness. They perceived the value of missile weapons which should strike at a distance, and they devised unsurpassed patterns for the arrow, the spear, the throw-club, and the sling-stone. They preserved the aim of the spear and the arrow by giving them a whirling motion. They attached a loose point to the spear for fish and aquatic mammals, so that the shaft should not be broken, and that it should offer the greatest possible resistance to the escape of the wounded animal. They gave greater impetus to the spear by using a sling or throw-stick, and to the axe by fastening it on a handle, thus gaining an advantage similar to that from a prolongation of the arm. They poisoned the head of the arrow and spear, and thus got game which would have escaped with an unpoisoned wound.

They were skillful hunters and fishermen. They invented pit-falls, nooses, box-traps, fences, decoys and disguises. They imitated the calls of the game animals with wonderful fidelity. They stalked quadrupeds by day and dazzled them with fire by night. They attacked and killed the lion, tiger, grizzly bear, hippopotamus, rhinoceros and elephant. They took fish with hooks, seines, hand nets, traps, nooses, harpoons, and poison. They baited their hooks with worms, meat, and genuine

and imitation flies and fish. They practiced deception on brutes as well as on their fellow-men. Civilization has added much to the implements of the hunter but nothing to his skill.

From cold and heat, from rain and wind, they sought shelter in caves and hollow trees and under projecting ledges of rock. Then they dug holes in cliffs and steep banks of hard earth or soft stone; made shelters of branches or mats; and afterward advanced to the construction of huts. They covered a frame of light poles with thatch, bark, clay-smeared wattle, or of heavy poles plastered with a thick layer of clay. They built dome-shaped huts of clay or hardened snow. They drove piles in shallow water as a support for villages relatively secure against the attacks of enemies.

They acquired high skill in making mats. They tried the bark of many plants, and different layers of the bark so that they might reject all save that which would yield the largest and toughest fibre. They used matting for clothing, bedding, sacks, shelter and sails. They made it thick like fur, and thin like light muslin. They also produced somewhat similar fabrics from the inner bark of certain trees by beating it until it became soft, flexible and suitable for clothing.

The art of making baskets arose with that of making mats. Both were carried to high excellence by rude savages. A little later was the discovery that a long and strong cord could be made by twisting together many short pieces of animal or vegetable fibres. The vegetable fibres, having been previously known in matting, were the first used in spinning, and were found to be the best for nets and cords to be used in the water. It was for fishing that there was the most demand for

twine among savages. After twine had been made, it was woven into cloth. by a process similar to that in the plaiting of mats.

As it may be said that cloth was developed out of the mat, so pottery grew out of the basket. A basket covered with clay set on the fire to heat water, turned into a piece of burned pottery which proved to be more valuable than the original basket, and other pots were made on baskets until it was discovered that the pot could be made better without the help of the basket.

They learned to dress skins so that they should be pliable, soft, warm, and valuable for clothing and bedding and also for tent covering. Whether they discovered the tanning qualities of the bark of the oak and of various other trees is doubtful; perhaps they found that they could dress skins with less labor by other processes. Certain it is that, for many purposes, they prefer the leather prepared by their methods to that from the civilized tanyards.

The lowest phase of navigation is that of the Australian who sits, astride, on a log, and propels it by paddling with hands and feet. A better conveyance is the raft of reeds on which the aboriginal Californian crosses San Francisco Bay or some of its tributary waters. A step higher is the log canoe with square ends, and a great improvement is made on that conveyance by sharpening the ends. In about the same stage of development with this form, are the canoes made of bark, mats or skins, stiffened with a wooden frame. Much higher are the large canoes made of planks sewed together, provided with outriggers, masts and sails, and capable of carrying fifty or a hundred persons on long voyages.

Savages tilled the soil. They loosened it with a dig-

ging stick, a hoe, or a rudimentary spade. They cultivated cereals, legumes, tubers, and fruit trees. They introduced valuable plants into regions far from their indigenous habitats. They observed the superior fitness of certain soils for certain plants and by putting manure, sand, ashes, or muck on their fields, they got better crops. They irrigated and flooded their land. They allowed their fields to rest, and thus in a certain sense rotated their crops.

They domesticated all the animals of much value to man. They began with pets of many kinds; then domesticated the dog, then the pig, and finally the sheep, goat, cow, horse, camel, buffalo, reindeer, ass, duck, goose, and chicken. They taught the dog and reindeer to draw sleds, the horse, ass, cow, buffalo and camel to carry burdens, and the sheep, goat, cow, camel, reindeer and buffalo to stand still to be milked.

They differentiated occupations. They had classes of men who devoted their time exclusively to boat building, knife making, fishing, and tilling the soil. They had a traffic of barter, and used domestic animals as a medium of exchange. They had periodical fairs and made long voyages to attend them.

When we take into account the circumstances in which they lived, the frequent famines, the bitter wars, and the other dangers to which they were frequently exposed; when we keep in mind their lack of metal, of letters and of scientific knowledge; when we think of all these drawbacks, it seems wonderful that they should have achieved so much. If all the inhabitants of an English village containing a thousand adult men were, in our time, set down without tools or books in an island such as England was before men occupied it, and had no

communication with other men, many years would elapse before they or their descendants would live as securely and comfortably as many savages did.

SEC. 56. *Industrial Development*.—Archæology is a witness that culture has steadily advanced. Wherever the remains of the habitations, implements and food of man have been found in the strata deposited in a remote age, whether in the drift, gravel or caves, or in village mounds, there the earlier the date of deposit, the ruder and simpler the life. In no continent have the products of the modern inhabitants generally been ruder than those of its occupants in the remote past. The aboriginal Australians of the last century had no tillage or polished stone, and there is no reason to believe that either was known to the Australians of preceding ages. Bronze and iron were not known to the Redmen east of the Mississippi in the last century nor at any earlier time. When Columbus discovered the New World, the Aztecs and Quichuans had no iron, nor was it known to their ancestors or predecessors. The Gauls and Britons who submitted to Cæsar were as far advanced in culture as any people who had occupied the same regions before them. No remains of a printing press, steam engine, railroad or magnetic telegraph has been found in the excavations of ancient cities or mounds in any part of the globe.¹

If the tunnels, the embankments, the deep cuts, the roads cut into the sides of cliffs, the mine excavations, the canals, the sea-walls, and the walls of brick, and stone, and mortar, made within the last eighty years,—if all these should be abandoned to-morrow to the corroding and eroding and other destructive forces of nature for two thousand years, after the lapse of so long a period,

they would still be plainly visible, and then would far surpass in magnitude and significance everything that we now know as prehistoric remains

Etymology is another witness against retrogression. Her evidence is complex and weighty. She has word lists in hundreds of tongues all indicating the advance of man from a simple to a complex life, from concrete to abstract ideas, from low to high industry. The English word "pecuniary" takes us back to the time when not metallic coin but the cow was the chief medium of commercial exchange. The English word "estimate" is the survival of a period when a thing was worth so much in "aes" or bronze. The Basque word for knife is a remnant of a period when the common edge tools were of stone. Philosophy is full of such traces of lower culture, and contains no evidence of retrogression. If we had no other proof, a comparison of the French, Spanish, Italian, Portuguese and Roumanian tongues, all daughters of the Latin, would suffice to convince us that the ancient Romans had no printing press, no steam engine, no railroad, no steamboat, no sawmill, no rolling mill, no chemical analysis. As the modern romance tongues came from the Latin, so the Sanscrit, Persian, Greek, Latin, Celtic, Slavonic, and Teutonic tongues come from an early Aryan language, which was lacking, as we know from a comparison of the derivative tongues, in many of the ideas and comforts of Greek civilization. Even our alphabet contains survivals of a period when men not having yet devised letters, wrote with hieroglyphics. Our A was once the picture of an ox; and if we extend its cross-piece on each side and turn it upside down we have the rudely drawn head of the ox with ears and horns.

The oldest records, including the papyrus rolls and monumental inscriptions of Egypt, the clay tablets of Assyria and Babylonia, the Vedas, the Avesta and the Pentateuch abound with evidence, that in the times when they were written, culture was much ruder than at present in all the main departments of life. There was no coined money; traffic was unimportant; bronze was the most common metal; crime was punished by retaliation; adult males captured in battle were slain; women and children captives were enslaved; and in religion, sacrifices, idolatry and polytheism were prominent.

A few cases of retrogression in human society are known, but they are so few, so relatively small, so unimportant in the general history of culture, and so plainly traceable to causes of limited influence, that they may be considered as illustrations of the general principle of advancement. The Bakalahari tribe in South Africa lost their cattle in war and are now poorer and lower in culture than were their ancestors, several generations since.² Some Tungoos communities of Northeastern Asia having lost their herds of reindeer, and some Kalmucks having lost their's of cows, have been compelled to live with less comfort, by fishing.³ Some Snake Indians west of the Rocky Mountains have been driven by stronger tribes from hunting grounds which their forefathers occupied, and so have been compelled to depend on smaller game for subsistence.⁴ In Mesopotamia, Morocco, Algiers, Tunis, Syria, Central America, Cambodia and Java the buildings of several later centuries are decidedly inferior, in magnitude, durability and architectural skill, to those erected there in the remote past. The overthrow of the Roman empire was accompanied by a great decline in literature and ornamental art over a large part of Europe.

But in all these cases, the decay in one place, or in some departments of life, is insufficient to prove a general retrogression for even a brief period. Even in the Dark Ages, culture continued her general onward march.

SEC. 57. *Natural Progress*.—By a large accumulation of evidence from many different sources, history shows that savage industry was originated and developed through its whole course by man's innate capacity; and that this development was governed by natural and uniform laws, which were the same as those which have been observed in barbarous and civilized life

In preceding sections we considered the different phases in the arts of tillage, spinning, pottery, navigation and the domestication of animals. We found that these phases have every appearance of being the successive steps in the slow and gradual development of skill, under influences similar to those which we observe at work in the industrial progress of our own time. Many of the products of human labor are intelligible with and not without the theory of natural growth.

Let us now consider the origin of one of the most ingenious and important products of civilized industry, the steam engine. It drives other machines; unlike them generally, it is power-producing rather than a labor-saving invention. If there be any possession of man that by the mightiness of its power, by the magnitude of its size, the complexity of its construction, the abstruseness (to the savage mind) of the principles on which it is constructed, the precision with which its parts are adapted to one another, and the vastness of its influence on life;—if there be any industrial possession of man that would deserve to be considered a supernatural production, it would assuredly be a steam engine of 1889.

And such the Australian or the Arab has often believed it to be; but not so the civilized man, who knows the history of the invention and of its inventors, of the experiments, disappointments, trials, toils and numerous improvements, many small and some great, made by those men who have contributed to produce this great machine. The record of the development of this marvel of industrial genius is within reach of all; it shows an unbroken series of natural steps, without any commencement, or subsequent interruption, by a supernatural jump. The steam engine is natural not only in its origin but also in its method of working. It demands food or fuel, and fresh air, and these must be combined in active combustion, with a development of heat which is converted into mechanical power in strict proportion to the amount of fuel consumed and heat evolved, in accordance with physical laws.

Other great products of human genius, inferior to the steam engine in some respects, but nevertheless marvelous, are the puddling furnace, the rolling mill, the Bessemer converter, the steam spinning jenny, the steam loom, the steamboat, the railway, and the electric telegraph, each of which was the result of long studies and numerous experiments. If we be convinced that all these are the natural products of the human mind, consistency will require us to believe that the simpler, smaller, and less efficient implements of our prehistoric ancestors had a like natural origin. Besides, it does not agree with our ideas of divine dignity that the gift of the gods should be superseded by the superior device of man. If Neptune had given the pattern and rig of the ancient galley to the Greeks, he would have kept up his credit by building the modern schooner, ship and steamship.

If Ceres had made the first hoe, she would also have made the first iron plough. If she had made the flail, she would also have invented the threshing machine. The gods do not give such gifts to us, nor did they give inferior ones to our ancestors.

By his wants and his surroundings, man is compelled to work; and by his intellectual constitution he is stimulated and enabled to devise methods of making his labor more convenient and efficient. There is no end to his improvements, and every one in its turn is prized, copied, and made the base of new improvement. The ingenuity of one becomes the treasure of all. An art of value to the multitude, and once widely known among them, has never been lost. No large branch of industry became perfect or reached its present stage of development among savages.

CHAPTER IV.

SOCIAL LIFE.

SEC. 58. *Promiscuous Group*.—Among savages generally, life is made insecure by frequent warfare; and as a rule, the lower the culture, the greater the insecurity. It was unsafe for the primitive man to dwell at a distance from friends. Regard for his own safety, compelled him to make his home with others in a group, bound together by the obligation of mutual defense. All the non-tilling and most of the tilling tribes known to civilized observation consist of small defensive groups, which we may presume are the successors of groups organized, for the purpose of protecting their members, in the beginning of human society.

There is reason to believe that for thousands of years and over a large part of the earth, in the primitive defensive groups, all the men were common husbands and all the women common wives. There was no idea of the relationship of uncle, nephew, father-in-law, son-in-law or brother-in-law, or of their feminine equivalents, and of course, without the ideas, there were no words to express them. The child gave the name of father to every man in the group or village; and in return, the man called every boy, son. The maternal relation was

of course as well known then as at any later time, but it did not find so distinct a recognition in common speech. Every woman was called mother by all the children, and every child was called son or daughter by all the mothers. There was no word to describe a collateral relationship or to convey the idea of exclusive sexual possession. The only relationships recognized in common speech were fraternal and parental, including brother, sister, parent, grandparent, great-grandparent, child, grandchild and great-grandchild. In all these cases the blood was traced exclusively through the mother. Paternity was considered too uncertain to be taken into account in the pedigree. There was no word for husband, save man; none for wife, save woman.¹

In the course of time, the promiscuous or consanguine group was overthrown by influences ascertainable only by inference. Bachofen believes that the main cause was the sentiment of the women against intercourse with brothers;² but this explanation is improbable when we remember that no such feeling prevented the marriage of full brother and sister in the royal families of the Quichuans, and ancient Egyptians and Persians, in barbarous culture; nor of the half brother and sister, children of the same father, in many countries, including some in civilized culture.

Peschel attributes the reform to the conviction that long interbreeding has a pernicious effect on the physical and mental constitution of humanity, and even prevents continuous fertilization;³ but this explanation, like the preceding one, is not in harmony with customs that have been long maintained over extensive areas. According to Lubbock, the promiscuous group was overthrown by the men who wanted wives as exclusive

possessions and as trophies of their military prowess; and having got these by capturing women from other groups, they gradually adopted the opinion that it was discreditable to take wives among the women of their own villages.⁴ This theory is however unsatisfactory on many points, and especially in these that after the overthrow of the consanguine group, the husband did not take his wife into his village but he went into hers, and that he went for his wife not to a hostile tribe but to a friendly clan.

The promiscuous group was a scene of continuous quarreling between brothers and sisters in the presence of fathers and mothers who were called upon and could not refuse to interfere. There was only one remedy for this evil and that was that the man should marry, in another village; and as the idea of sexual exclusiveness had not obtained a strong foothold, and was perhaps without any influence on the majority of the community, the only safe plan for the man was to leave his native village and make his home in another where all the women belonged to a different stock.

The first change from the consanguine group was a prohibition of matrimonial relationship between all persons descended from a common mother in the female line. This was the basis of the feminine clan, to be considered hereafter. The second change was that the head chief required his wife or wives to be true to him, as among some Polynesians and troglodytes,⁵ while the other women were subject to little restriction. The third reform was that nobody but a relative or guest of the husband was entitled to the wife's favor, as in many Arab tribes.⁶ Many other customs relating to the wedding day,⁷ and to the collection of a dowry, found in Egypt,

Libya, Quichuan Peru and Hindostan,⁸ must be considered survivals of the consanguine group. In Babylon, every woman before marriage was required to make a sacrifice in the grove of the temple of Astarte.⁹ Of the Britons, Cæsar wrote: "By tens and twelves, husbands possessed their wives in common, and especially brothers with brothers; and parents with children."¹⁰

SEC. 59. *Relationship Nomenclature*.—In terms of kinship, the most primitive language known, is that of the Polynesian island of Rotuma. It recognizes no collateral relation, such as uncle, nephew or cousin, and no relation by affinity save brother-in-law and sister-in-law. To his mother's brother, the Rotuman gives the title of father; to his father's sister, that of mother; to her son that of brother; to his sister's son, that of son. To us, who have frequent and important use for the distinctive titles of uncle, aunt, nephew, niece and cousin, it seems strange that people could have done without words for those relations. In many other respects the language of Rotuma is not meager, and its extreme poverty in relationship of affinity and its lack of all terms of collateral kin, is inexplicable upon any theory save that of the promiscuous group.

One grade higher than the tongue of Rotuma is that of Hawaii, which has no terms for collateral relation, but in addition to those of brother-in-law and sister-in-law has those of father-in-law and son-in-law, with their feminine equivalents. One grade higher is that of the Mohawks, who besides having brother-in-law, father-in-law and son-in-law, and their feminine equivalents, have the word uncle to designate the mother's brother. This term is not given to the father's brother; for he is still called a father, as in the consanguine group, and his rela-

tion to the woman is very similar to that in the earlier social condition. After Rotuman, Hawaiian and Mohawk nomenclature, we come to a fourth stage of development in the Micmacs, a tribe whose remnant is now found in Eastern Canada. To the distinctive terms in the lower forms of speech, they have added uncle for father's brother as well as for the mother's, and nephew and niece for some, but not for all, children of brothers and sisters. Thus to the man his brother's sons, and to the woman, her sister's sons are her only nephews; while to the man, his sister's sons, and to the woman her brother's sons are not nephews but sons. The Burmese go a step further and use the word nephew in the same sense as we do. The sixth step is that of the Wyandots who use the word cousin, unknown to Rotuma, Hawaii, Mohawk, Micmac, and Burma, but apply it not as we do, but only among males to the mother's brother's son and to the father's sister's son, while the father's brother's son and the mother's sister's son continue to be brothers, as in the earlier phases of speech. The Karens in the seventh step above the promiscuous group give the title of cousins to the children of all those whom we call uncles and aunts.

The Kingsmill Islanders have the same nomenclature as the Hawaiians; the Oneidas the same as the Mohawks; the Japanese the same as the Burmese; the Senecas the same as the Wyandots; and the Eskimos the same as the Karens. All these tribes give the title of grandfather to the grandfather's brother; of grandmother to the grandfather's sister; of grandson to the brother's son's son, and to the sister's son's son. Since in the consanguine group, our first cousin was their brother, and retained that title among the Hawaiians and Mohawks; so in

those tribes, the son of the first cousin was called a son, and the cousin's grandson was called a grandson.

According to the development of speech in the matter of relationship nomenclature, a man may have a dozen fathers and no uncle; a dozen mothers and no aunt; a dozen grandfathers and no grand uncle; several uncles who have sisters, wives and children, but no aunt or cousin; and several brothers and sisters with children, but no nephew or niece.

In certain tribes the same title is given to a cousin's son and to a grandson; and in Latin as in some romance languages of modern Europe, the same word may mean either nephew or grandson, as it did in England three centuries ago.

The appendix contains several tables presenting, in tabular form, some of the information already given here about relationship nomenclature, with additional evidences in favor of the theory that, at one time, the promiscuous group was widely prevalent, if not universal in human society.

By comparing as to certain tribes, the titles of uncles and aunts with those of their children, grandchildren, and great-grandchildren, Lubbock found that out of two hundred and eleven points in Morgan's tables of consanguinity, two hundred and seven contain evidence of progress from the promiscuous group to the modern family; as against four on the other side. The evidences are as fifty to one. Comparing other relationships, such as uncle with father, aunt with mother, granduncle with grandfather, grandaunt with grandmother, nephew and cousin with second cousin, and grandnephew with grandchild, the evidences are a thousand to one.

SEC. 60. *Feminine Clan*.—From the promiscuous

group, the matrimonial system advanced to the next higher step, the feminine clan, which traces descent exclusively through the mother, forbids the man to have any intimacy with a woman who has inherited the same blood in the female line, and requires the husband to transfer his residence to the village, and his allegiance to the clan, of his wife. It retains all its daughters and drives away all its sons. The women are its only permanent element. They own the territory, the dwellings, the furniture and the food; and the privilege of divorce belongs to them and to them exclusively. The husband may abscond but he cannot drive the woman from the common home. A clan is a division of a tribe; and in a North American tribe there are at least three clans. While all the women of the clan are born in it, all their husbands must have come from other clans, perhaps six or eight others. The tribe is never exogamous; it never compels its young men to seek wives in other tribes. The feminine clan prevails among the Iroquois, the Creeks and their related tribes, the Delawares, the Muncies, the Mohicans, most other tribes east of the Mississippi, the Mandans, the Otoes, the Minitarees,¹ and among most of the Australians. In every quarter of the globe it has left traces of its former prevalence.

Wherever the feminine clan exists, it is the main feature of the social and political organization. It claims the highest allegiance, gives the most efficient protection, and is the basis of the only common worship. In the feminine clan, the family or group of a man with his wife or wives and children has not attained prominence and influence. So far as there is an inheritance, the clan is the chief heir of its dead member, taking precedence of brother, nephew, or son. Generally in the feminine clan

the man is supposed to have only one wife, but the relations are very loose for both man and woman. No marriages or sexual intercourse between children of the clan is possible without incest; no robbery or murder without sacrilege. No homicide by an outsider can be left unavenged without disgrace. A man owes to his fellow clansmen, and to them alone, fraternal affection, cordiality, fidelity, and mutual helpfulness. All others are beyond the protection of any strong obligations of morality. There being no pedigree in the male line, a man can marry his half-sister on the father's side without offense to public opinion; and the maternal uncle has more authority over his nephew than has the boy's father whose claim to the paternity cannot be proved and, according to the general custom of the clan, may be very doubtful.

SEC. 61. *Totem*.—The feminine clan comprises the female descendants, in the direct female line, from a common ancestress, and also all those male descendants, in the same line, who have not yet married into another clan. The ancestress called the totem, is divine, and the worship of her, though not prominent, is one of the bonds of clan union. In most cases she was a brute; in some a plant, a mineral object, or a meteorological phenomenon. The savages did not undertake to explain how a bear, a plum or a flash of lightning could be the mother of men. They accepted the assertion as a matter of tradition, to be accepted without question. The members of the clan venerate not only their mythical ancestress but all natural objects or phenomena of her class, and treat all of them as totems of the clan. Thus not only the mythical mother black bear of the black bear clan is sacred to all its members, but so are all black bears. No

animal of that species must be killed or hurt or eaten, nor approached without a show of reverence. The name of the totem is the name of every member of the clan. Thus in the black bear clan, every boy is called a black bear, and he has besides a personal name, but no name inherited from his father. He draws the figure of his totem on his club, canoe, deerskin, shield or tent, or wears it tattooed on his breast. In the totem clans of America and Australia, one of the first questions to be asked when strangers meet is "What is your totem?"; and from their replies, they know their relationship. If of the same totem, they are brothers.

At Mt. Gambier and presumably in other parts of Australia, many animals, plants, heavenly bodies and meteorological phenomena, not recognized as totems, are yet recognized by the aborigines as belonging to certain totems and sharing their sacredness in a minor degree. Thus the dog, the blackwood tree, fire, and frost belong to the pelican totem; the duck, the wallaby, the owl and crayfish to the tea tree totem; the bustard, the quail, and the dolvich to the murna (a plant) totem.

The average number of clans in the tribes east of the Mississippi is perhaps eight. The Chippeways have twenty-three; the Creeks twenty-two; the Pottawatomies fifteen; the Senecas, Cayugas, Onondagas, Tuscaroras, and Choctas each, eight, the Oneidas and Mohawks each three. Among the totems of the Creeks are wolf, alligator, cougar, bear, deer, fox, skunk, raccoon, wild-cat, toad, hickory-nut and maize.¹ The Chippeways have five kinds of fish, three kinds of tortoise, eight kinds of bird, eight kinds of quadruped and one of snake. The Pawnees west of the Mississippi, have buffalo, beaver, deer, eagle, and owl.²

In many tribes, besides the clan there is a grand-clan or association of clans, reminding us of the "curia" or grand-clan of the Romans and the "phratia" or grand-clan of the Greeks. It seems to have been formed out of a clan which grew so large that convenience demanded a subdivision. The Mohicans have wolf, turtle, and turkey, grand-clans; the first comprising the wolf, bear, dog and opossum clans; the second comprising the little turtle, mud turtle, great turtle and yellow eel; and the last the turkey, crane and grouse clans. The functions of the grand-clan are mainly ceremonial, including the preservation of peace among its subordinate clans.

SEC. 62. *Australian Exogamy*.—A large part of Australia is occupied by feminine clans with sacred totems, supreme allegiance and the obligation of mutual defense, as in North America; and besides with peculiar subdivisions, limiting the right of marriage. These subdivisions extend through many tribes, some of them separated by a thousand miles of distance, as well as by ignorance of each other's speech. By gestures however they can ascertain their relationship in the clan and subdivision of the clan, the first points of inquiry among them when they meet as strangers. These Australian classes are the highest development of the exogamic principle, but under their influence there is less approach towards monogamous life than in North America.¹

Some tribes have two and some four of these classes. A tribe at Mt. Gambier has two clans each of which has two classes, the Kumite and the Kroki. In the former the man is Kumite and the woman Kumitegor; in the latter the man is Kroki and the woman Krokigor. The final "gor" is a feminine termination. The Kumite must mate with a Krokigor of the other clan and all her

children are Krokis and Krokigors. Her son Kroki must mate with a Kumitegor of the other clan.

The Kamilaroi tribe has six clans, of which three (Iguana, Kangaroo and Opossum) have the Muri (female Matha) and Kubi (female Kubitha) classes; and the other three (Emu, Blacksnake and Bandicoot) have the Kumbu (female Butha) and the Ipai (female Ipatha) classes. There are thus six clans and four classes in the tribe. The name of the feminine class is derived from that of the masculine class, with or without other change, by adding the feminine termination "tha."

In the widely separated regions of Queensland, West Australia, Central Australia and Herbert River Valley, various tribes have the same four classes; but perhaps, in the whole continent, a greater number of tribes have only two classes. In the four-class tribes, the man is limited in the choice of a wife to a single class. Thus Muri must mate with Butha; Kubi with Ipatha; Kumbu with Matha; and Ipai with Kubitha. The child never belongs to the class of either father or mother, but always to her clan. The sons and daughters of Kubitha are Muris and Mathas; those of Matha are Kubis and Kubithas; those of Butha are Ipais and Ipathas; those of Ipatha are Kumbus and Buthas. Ipatha is the mother of Butha and Butha of Ipatha. A similar alternation appears in the classes of father and son. The system is so arranged that the blood of the tribe shall flow continuously and evenly through all the classes. Thus, Kumbu's children are Kubis; his grandchildren, through his daughter, are Muris; and his great-grandchildren, through his daughter's son, are Ipais. In four generations, each of the four classes is represented.

The class has no distinctive totem nor duties of a

political or religious character ; it is exclusively a limitation, with correlative privilege, in the sexual relations.²

SEC. 63. *Feminine Clan Survivals*.—Many countries which have not had the feminine clan in historical times, yet have traces of it in their customs or traditions. The totem, one of its peculiar features, is found in many African¹ and Dyak tribes;² and it reminds us of the brute deities of the districts of ancient Egypt, where the sister's son inherited the office of district prefect, in accordance with a rule inherited from very early times.³ Inheritance in the female line prevailed in the chieftainship of the ancient Picts,⁴ as it does now in that of the Batta Malays,⁵ Tongans,⁶ Ashantees, Mandingoes and Loangoes,⁷ and in the transmission of property among the Berbers, the Malagasies, the Bantars of Hindostan, the Wamoima, some Nubians, the Angolese,⁸ the Island Malays,⁹ the Marquesans, the Tahitians and the Fijians. Both rank and property descend to the sister's son among the Bangalas and many Micronesian tribes. Relationship is traced mainly in the feminine line among the Kasias, Kocchs, Nairs, Malabars and Padang Malays. The Banyars have elective chiefs, the choice usually falling on the sister's son of the predecessor,¹⁰ and a similar rule prevailed in electing the emperor of the Aztecs.¹¹ The Kasia husband moves to the house of the wife ; and among the Scandinavian Lapps in the last century, the newly-married man had to live for a year with his father-in-law. The modern Chinaman who has migrated to a remote country sends his savings to his mother, rather than to his wife. In ancient Spain, the Iberian daughters inherited all the property of the family and provided for the sons.

In Fiji, the eldest son of the eldest sister can go to the

village of the chief who is his maternal uncle and there take anything save the wives, and house of the chief. He is the heir of the whole village and, when he pays a visit, must be received with great festivity.¹² Among the Kaffirs and many tribes of Eastern Africa, the maternal uncle has more authority over the child than the father; and among the Bondas¹³ and Kimbondas¹⁴ he has exclusive power to sell his maternal nephew or niece. On the other hand, the Bondas hold the nephew responsible for the crimes and debts of his maternal uncle.¹⁵ Various traces of feminine descent are found among the Senegal Moors and the Guajuro Indians of South America.¹⁶ In the Egyptian and Etruscan tombs, the name of the dead man's mother, not of his father, is given;¹⁷ and in the Hebrew book of Chronicles, the name of the king's mother is associated with his, as if she were the second person in authority. The king's mother is prominent in Burma, Ashantee, Magira, Bagirmi and Madai.

Aristotle remarked that the most warlike tribes were under the rule of women, and among them he included, presumably, the Celts, the Scythians and the Thracians, who had survivals of the feminine clan, and had women noted for courage. In the time of Tacitus, the Teutonic Sithones had women chiefs; and among the Teutons generally, the best hostage, for the good conduct of a ruler, was not his son, but the son of his sister. The Lycians of Asia Minor derived their pedigree and took their name from the mother exclusively. Among the Southern Slavonians of this century, the chief obligation of avenging a murder rests not on the father, but on the brother or maternal uncle.¹⁸ Among the Arabs and the Gonds, the young man has a prior right to marry the daughter of his paternal uncle; whereas it would be

improper for him to solicit the hand of a cousin on his mother's side. The greater sacredness of the maternal relationship is a survival of exclusive feminine descent. So also is the rule requiring the monarch in ancient Egypt and Persia, in modern Quichuan Peru, Madagascar and various African countries, to marry his sister, so that his son should inherit through both parents.

Many Arab tribes are named after brutes such as lion, wolf, dog, gazelle, calf, dove or eagle, or as tradition says, after founders who bore the names of those animals. The dove tribe does not eat the dove; the other tribes attach no sacredness to the animals after which they are named. As we find many other traces of the feminine clan in Arabia, we may presume that all the tribes had their respective totems in remote times. Speaking of some Arabs at the beginning of the Christian era, Strabo said: "All have one wife in common. . . Adultery is punished with death, but it can be committed only with a woman of another tribe." There is here no definition of the tribe within which intercourse was permissible; and the language is not inconsistent with the supposition that all the husbands were, by birth, members of a clan different from that of the wives.

The word for tribe in the language of the Arabs, and that for fellow-clansman in the tongues of the Malays and Alfuras of Celebes are survivals of a condition in which descent was traced in the female line only. Some Arab tribes are named after women. Thus the Banu-Chindif, the Banu-Ocda, and Banu-Mozaina are the descendants of the women Chindif, Ocda and Mozaina. The Bedouins of Southern Arabia accept sons-in-law, who are to settle in the wife's village or group, a custom that has survived from the time of the feminine clan.

In the opinion of the Arabs the character of the man bears more resemblance to that of his chahl or maternal uncle, than to that of his father; and for his good or bad deeds, the people bless or curse his chahl, even if the latter died twenty years before. A proverb says, "When a mule was asked 'Who is your father?' he answered, 'The horse is my chahl.'" When Mohammed wanted to honor Wakkaz he took his hand and said to his friends "Behold my chahl!" An Arab chief describing another chief to Mohammed said, "He has little capacity and less generosity; his children are stupid and his chahl is bad." An Arab chief of the Taglib tribe offered his wife to the Calif Al-Mansur, who excused himself and explained to his servant that his only reason for rejecting the match was the passage in a poem by Jarir who wrote, "Seek no chahl among the Taglib. The negroes are nobler chahls." The importance thus attributed to the chahl, as Wilken remarks, can be well explained as a survival of exclusive maternal relationship.

Among the Hebrews, who are akin to the Arabs, we find traces of feminine descent. Abraham married his half-sister, daughter of his father, and so did Moses. Amnon violated his half-sister, also a child of David, and could have married her, but neglecting to do so, was slain. Such marriages were permitted in the time of Ezekiel.¹⁹ The purchase money for Rebecca went not to her father but to her brother and her mother,²⁰ and the duty of blood revenge belonged to the relatives on the mother's side.²¹ Robertson Smith has made the remark that "the use of a participle [in the Hebrew tongue] to mean a physical father must, beyond all doubt, have been developed in a condition of life in which physical fatherhood was not the basis of any important social relation."²²

Marriages between brothers and sisters of the half blood by different mothers were reputable among the Athenians in the time of Solon, and were tolerated as late as Pericles. Before Cecrops the Athenians took their names from their mothers as did also the Lycians in 450 B. C., and the early Cretans and Etruscans, and the Locrians of Italy. In Madagascar now the Hovas permit the marriage of brother and sister by different mothers.

The feminine clan did not permit the father to sell the daughter. She belonged more to her mother and maternal uncle than to her father; and if there was any article of purchase in the matrimonial bargain, it was rather the husband than the wife. He, not she, changed residence. His title in her was not permanent enough nor exclusive enough to induce him to pay for her.

SEC. 64. *Masculine Clan*.—The feminine clan was probably universal or nearly universal at one time among the non-tilling tribes; but it became less and less suited to the wants of society. The warrior sometimes found himself compelled to fight with the clan of his wife and daughters against that of his mother and sisters. His companions in the field had not the same blood as he, nor the same early training, nor the same traditions, nor the same sympathies, nor the same life-long interests. They had not been bred in the clan; they had no secure place in it. They might be divorced and driven to seek homes elsewhere.

All the improvements in the useful arts in government, in the military art, and in religion tended to weaken the feminine clan. The advance of cultivation, the establishment of slavery, nobility, powerful chieftainship, and hereditary priesthood, and the introduction of new tactics

were adverse influences. Some of them could not gain a foothold until the rule of maternal descent was overthrown. The successful military leader saw the importance of having soldiers educated from boyhood in the same drill, accustomed to trust one another, with the same life-long allegiance, and the same general permanent interests. The men wanted to be masters, not slaves of their wives; owners, not tenants at will of their homes.

By such influences, the feminine clan was overthrown over a large part of the globe, but precisely how or where the change was first made we do not know. So soon as one tribe had been well organized on the basis of masculine pedigree, the advantages of its social system were proved by its superior military strength,—the chief test of human institutions, in the early grades of culture.

When the wife became faithful to a single husband, when paternity became comparatively certain, and when degrees of relationship were traceable as distinctly on the side of the father as on that of the mother, there was no longer social need of the clan. Now, for the first time, the idea of the family began to be conceived as an association of a man with a wife or several wives and his children, under his control, all the members of the association being related to others in the community by definite grades of affinity or of lineal or collateral consanguinity, on both sides of the parentage. The recognition of these degrees suggested better limitations, than those of clan exogamy, in the choice of spouses. There was much more reason to be governed by regard for descent from a common grandparent or great-grandparent, than for that from a very remote and perhaps mythical ancestor on only one side.

If the clan had been exclusively social in its character it would have disappeared with feminine descent. But it was also political and religious, and its influences in these respects had not diminished. It was still the sovereign political organization, with the only power of giving efficient protection to individuals; and in many places it was indispensable for that purpose. Besides, its importance had been increased by the development of a system of public worship of which it became the chief custodian. Such influences in favor of the clan were sufficient to maintain it long after the abandonment of feminine descent on which it was originally founded.

Thus the masculine clan succeeded to the feminine clan, preserving the same principle of exogamy. It took possession of most of North America west of the Mississippi, of part of Australia, and of part of Asia. It existed in Ancient Greece and Italy. Remains of it are found in Hindostan and China, where persons of the same family name are not permitted to marry. In all China there are only four hundred family names, with five hundred thousand persons to each on an average.

SEC 65. *Capture*.—The rule of male descent may have been recognized first in the children of women taken from hostile tribes by chiefs or distinguished warriors. Such captives became the exclusive property of their captors, and their children, distinguished by a known posterity, became the favorites of their fathers. As such wives were desirable, and yet were not obtainable in war by the majority of men, a custom of obtaining women by simulation of capture from friendly clans or tribes arose, and spread over many countries.¹

In parts of Australia, all wives are obtained by capture. The man who wants a wife, watches the young

women of the suitable clan and class until he finds a favorable opportunity to seize the one he chooses; he knocks her senseless with his club, and then, perhaps with the assistance of some friends drags her away. This is the only wedding ceremony. The assent of the woman is not asked, and if asked could not be granted without gross violation of the proprieties. She expects and desires to be treated in this way, because it is the only respectable method of matrimony. Brides are taken by force or with show of force among the Eskimos at Cape York, the Armenians, the Kaffirs, the Mandingoes, the Tungoses, the Kamtschatkans, some Bedouins, and some tribes in the Amazon valleys.

The pretense of force is a survival of the custom of real capture; which latter, however, was, in most cases, a custom recognized by the comity of clans or tribes. It was not like murder, something to be avenged to the death. No tribe depended for wives exclusively on women taken in real warfare; and the masculine clan could never have been organized, if it had waited until it could take all its women by hostile force.

The polyandrous and polygynous habits of the feminine clan were not in harmony with the spirit of the masculine clan, under the influence of which they gradually diminished. Society advanced towards the idea of the family, but for long ages the idea remained vague, and its adoption in general practice was subjected to many limitations. The modern family has risen on the ruins of the clan; so long as the latter was potent, the former was weak.

SEC. 66. *Polyandry*.—Although abandoned in many tribes when the feminine clan was overthrown, in others polyandry continued to maintain its existence. It is

now the dominant matrimonial system among the Cashmerians, the Thibetans, the Nairs, the Todas,¹ and the Coorgs, and it is tolerated among the Kalmucks, Aleuts, Eskimos, Orinocos, Maypures, and Hottentots. It was found occasionally among the Maoris, Marquesans and many North American tribes east of the Rocky Mountains, as well as among the nobles of ancient Sparta and mediæval Venice.

Among the Nairs, Thibetans, and Cashmerians all the husbands of one wife are usually brothers. After the eldest brother marries, the younger ones live in his house. When polyandry is the general rule of the community, it is accompanied by the habit of exposing many of the female infants, as among the Todas and Marquesans; when it is the rule only of a dominant class, as among the Spartans and Venetian nobles, it grows out of the inability of some men to maintain separate families in the style demanded of their rank. The communities in which polyandry now exists contain about seven million people in the aggregate.

Most of the Toda families are polyandrous, but polygyny is also found among them. As the man, who marries the eldest of several sisters, is entitled to all the younger ones, so under some circumstances, the woman who marries the eldest of several brothers, can take the others. In the Paraná valley, South America, marriage contracts frequently stipulate that the husband may have several wives or that the wife may have several husbands.²

Among the Maoris, Marquesans, Bafiotés and Natchez, the privilege of having several husbands belongs only to the women of noble rank. In Congo, and the Mariana Islands, the noble women can divorce husbands

of inferior rank at pleasure, and for this reason prefer inferiors. The daughter of a Bechuana head chief cannot marry an inferior, but while unmarried, she can have as many lovers as she wishes.³

In Ashantee, Congo, Loango, and Akka, many daughters of high chiefs refuse to marry but make frequent changes in their lovers so that no one shall presume on the favor shown to him. Custom in Dahomey permits the king's daughter to invite any man to her chamber.

SEC. 67. *Polygyny*.—The masculine clan soon checked and finally suppressed the polyandrous customs inherited from the feminine clan, and established the polygynous family in which the wives were required, under ordinary circumstances, to be faithful to the husband. This polygynous family prevailed so extensively and so long, down to our own time, that it may be considered one of the ordinary features of savage and barbarous life. Out of hundreds of tribes, not half a dozen are monogamous. Indeed, to many savages, polygyny seems equally necessary to the women and to the men; to the former because of the excess of their number, many of the men being killed in war; and to the latter because there must be an interval of four years after the expectation of a birth before the child shall be deprived of a mother's milk by another child.¹ On this point public opinion is strict in some savage regions of Africa and Polynesia; as it is in various modern, and was in many ancient barbarous, countries. The Congoese husband must keep away from his wife until her child can carry a calabash of water without spilling. In Fiji, if a woman has a child before its predecessor is four years old—the age for weaning—her relatives take great, and sometimes mortal offense at the husband. Even in the tribes possessing

milk-yielding animals, monogamy would be considered discreditable to a chief.²

The red warrior, who buys the eldest in a group of several sisters, has a recognized claim to buy the younger ones when they arrive at womanhood. For the sake of domestic harmony, he prefers that all his wives should be sisters. The Cherokee man must add his mother-in-law to his list of wives when she becomes a widow.

SEC. 68. *Girl's Position*.—In most tribes of Africa, Polynesia, and America, custom places no restriction save those of rank and blood relationship, on unmarried women. Every village of the Tongans¹ and Wanyamwuezi² has a large hut with a single room for the exclusive use of the girls and their lovers. In eastern Equatorial Africa, the Foosa girl has a hut for herself and her visitors.³ Among the Kamtschatkans the girl boasts of the number of her lovers, and so in certain cases does the woman among the Dakotas.⁴ The Santals, Gonds and Wanikas have festivals for the unmarried women and their favored adorers. Among the exceptional tribes, which demand strict conduct from their unmarried women, are the Cheyennes, Apaches, Abipones, Fans, and some Patagonians.

SEC. 69. *Wife's Position*.—The overthrow of the feminine clan led to the custom of buying wives. Youth, beauty, noble blood, membership in a powerful clan, and skill in fishing or diving for mollusks, are among the elements of a girl's marketable value. In many tribes, the possession of a number of daughters is a source of wealth. The purchaser is entitled to a return of his money if the woman should be sterile, if she should elope, or if she should die before having a child. Some customs permit her to leave her husband, whenever she

finds a preferred lover who will pay her original price. Her relatives by blood retain an interest in her, avenge her murder by anybody but her husband, and in some tribes can demand payment from him when he kills her.

Generally in savage tribes, not organized on the basis of feminine descent, the husband is the absolute owner of the wife. He can divorce, sell, mutilate, or kill her without the least responsibility to anyone. He has the same ownership and control of his children. If his wife be entitled by local customs to a divorce and she wishes one, she cannot leave him while she expects or suckles a child; for the children belong to the father and must be delivered to him in such condition that they can live without further assistance from the mother.

In countries where a comfortable hut can be erected by the labor of one person in a few hours, each wife has her separate dwelling, and the husband makes his home for alternate days or weeks in each. Jealousy is perhaps not more frequent in polygynous than in monogamous families, and the first wife is pleased when her husband marries again. The possession of several is a mark of the man's dignity. He is subject to no penalty for paying attention to women not in his family. A Kaffir proverb expresses the idea accepted in some of the more advanced tribes, "Man is for all women; woman is for her husband alone." Among the Redmen, the man lives with all his wives and children in one room.

The husband does not converse with his wife before company; he does not eat with her; he treats her as an inferior being, or slave. When she goes with him, she must walk at a distance behind him. If there be a burden for one, she carries it; if a horse for one, he rides it. In many tribes, even in seasons of superabundance,

she is forbidden to eat certain delicacies. To her, ava, turtle, pork, and cocoa-nut are prohibited in parts of Polynesia; chicken and goat in Ishogoland; pork among the Khonds; certain fish in some parts of Australia; human flesh and various other delicacies in Melanesia, and in the Mbaya region, monkey and capibara to the married woman; and all quadrupeds, birds and large fish to the girls. In the countries where these prohibitions respectively prevail, they belong to the local ecclesiastical systems and the priests threaten violators with the terrors of divine wrath.

In Dahomey and Cueva where the woman are efficient soldiers, in Balondaland where they own and till the fields, and in those regions where they get food supplies of shell-fish by diving, or fish by angling, or roots by digging, they are treated by the men as social equals.

In those tribes which require the husband to capture his wife or to elope with her, he must nevertheless pay for her; and if he cannot pay at once, he may be bound, so long as he lives, to give to her father part of every large animal killed by him. Among the Garos and Bhinyas of Hindostan, some peninsular Malays, and the Ahitas of the Philippine Islands, some liberty of choice is allowed to the girl, but after she has accepted the suitor, he must nevertheless pay for her.

In Casemanche, the girl may be betrothed in infancy, and married when she becomes a young woman. On her wedding day she receives a chemise which she must wear with the obligation of fidelity, the obligation expiring when the garment is worn out. As beating with a club or stone is part of the process of washing in that country, the young married woman may often be seen pounding part of her wardrobe very industriously be-

tween two rough stones.¹ In certain Malagasy tribes while the husband is absent from his village, his wife must be true to him.² In Dahomey, Japan, and parts of Hindostan and Malaysia, the occupation of the public woman is not disreputable, and many poor girls adopt it for a time for the purpose of learning the habits of polite society, and collecting money for a dowry. A hospitality more generous than that of civilized communities is common among savages in all the continents.

SEC. 70. *Marriage, etc.*—Savage tribes generally have no wedding ceremony, the importance of which, in civilized society grows out of the permanence of the matrimonial relation, the chastity or supposed chastity of the average bride, and the husband's promise to love and cherish her. The unrestricted or extensive promiscuousness in the early culturesteps, and the capture, purchase and enslavement of the women, tended to prevent display on the occasion of a marriage. In very few savage tribes is there any serious ceremony; among the exceptions are the weddings of chiefs and nobles before priests in Tahiti,¹ and of warriors before chiefs in New England.²

The Andamanese man and women may treat each other as husband and wife through a season or two, but after the birth of a child, they separate and select other partners.³ Marriages for a few days are permitted among the Piutes;⁴ for a week or month among the Hurons;⁵ without obligations of fidelity on either side among the Akkas,⁶ and on probation among the Todas, Congoese, Greenlanders, and many North Americans. In some Polynesian groups there is no permanence in the sexual relation until the couple have a child which they agree to rear.⁷

The Hassaniyeh Arab marriage contract binds the wife

to conjugal fidelity for a certain number of days—usually four—in every week. In making the bargain the husband haggles for five or six; the father for two or three days.⁸

The man's privilege of divorce is often used, especially by the poor man who can have only one wife at a time. When he sends her back to her father, he cannot reclaim the price paid, and the father does not object, as he can sell her again. The matrimonial relation is usually brief among the Damaras, Kasias and Aleuts. The Guaycurus and Chiriguanas of South America and the Eskimos often trade wives. Among the Chippewyans and the Bushmen, the strongest man is allowed by custom to take the wife of the weaker. The question of relative strength is solved by wrestling.

Divorce costs a camel in Arabia, and many men there have paid the price over and over again. Burckhardt saw a man forty-five years old who had had fifty wives, and only one at a time.⁹ Ali, son-in-law of Mohammed, had two hundred wives in all, at different times; and a dyer of Bagdad, is famous for having wedded nine hundred different women.¹⁰

In those regions where the wife is bought, there is no limitation to the age at which she may be delivered to her husband. Often she is paid for when not more than six or eight years old, and sometimes at such a tender age she is taken to the home of the purchaser. Some travelers attribute the early fading and common sterility of savage women to the abuses accompanying their premature marriage.¹¹ As there are child wives, so there are child husbands. The latter are found now among some hill tribes of Hindostan,¹² and among the Kirghiz,¹³ as they were in the last century among the Russians. By

marrying his child son to a young woman, the Russian farmer obtained a cheap servant and concubine.

SEC. 71. *Brother Adoption*.—The custom of adopting a brother by a mixture of blood prevails over much of Africa, Polynesia and Malaysia, and is found in North and South America and Western Asia. It existed also in ancient Europe. The methods of making the mixture are numerous, including simultaneous sucking of the blood from cuts in the upper right arms of the two who adopt each other, and the smearing of the blood of both on bread which is eaten by both; and putting it in beer which is drunk, and mixing it with tobacco which is smoked. Among the Wanyamwuezi, powder is rubbed into the cuts so they shall remain visible reminders of the relationship. The Syrians smear some of the blood on paper which is enclosed in a little case and carried on the neck as a sacred amulet. The brothers adopted by a mixture of blood, owe the highest devotion to each other; must defend each other at the risk of their lives; must regard each other as having almost equal rights in their property and wives; must avenge the wrongs done to each other; and in some tribes must exchange names, so that each abandons his own former name and assumes that of the other.

SEC. 72. *Couvade*.—The couvade, a custom requiring the father to lie abed for a week or two after the birth of his child, prevails or prevailed extensively among many savage tribes, including the Lower Californians, the Shoshones, some New Mexicans, the Arowaks, the Abipones, the Coroados, the Caribs, the Greenlanders, the Kamtschatkans, and some Congoes, and Dyaks, as well as among some barbarous peoples of Asia Minor in the time of Xenophon, among some people in modern China,

and among the civilized Corsicans and Basques of the XIXth century.¹ A kindred custom limiting the diet of the father for a few weeks exists in Fiji, Borneo, Madagascar and Kaffirland.² While in bed during the couvade, the Abipone father is carefully protected against cold breezes, so that he shall not take a catarrh; he is restricted in his diet, and his eyebrows are pulled out. A neglect of these precautions exposes the child to great danger of early death or life-long misfortune. Even after rising from his bed, the father must not exert himself much. During the first three weeks after the birth, he must not cut down a tree, nor catch a large fish nor kill a large quadruped nor even shoot off a gun.³ Similar restrictions rest on the father of the newly-born child among the Land Dyaks.⁴ If a man disregards the rules of the couvade, among the Mundrucus, he is not considered the father of the child.⁵

This custom had its origin presumably in the idea that the father must do penance to appease the spirits or gods who are trying to take the life of the infant; and it perhaps did not begin until after the overthrow of the feminine clan, when the father by laying claim to the child, became, to a certain extent, responsible for the preservation of its life. We do not find the couvade in any of the tribes organized in feminine clans. In the Bible we read that "the Lord struck the child, that Uriah's wife bare unto David, and it was very sick. David therefore besought God for the child; and David fasted, and went in and lay all night upon the earth."⁶ The motive of the Jewish monarch in this penance was to induce Yahveh to spare the life of the child,⁷ and as the procedure in the couvade is analogous to that of David, so we may presume that the custom had its origin in a

similar motive. The father does not wait until his infant falls sick, but performs his penance partly for the purpose of protecting it, in its first days, against the attacks of the evil spirits. In some tribes both the mother and her new-born child are unclean, and it is sacrilegious for the villagers generally to touch them or go near them until they are purified, the *couvade* of the father being part of the ceremony of purification.⁸

SEC. 73. *Infancy, etc.*—To the savage woman, parturition is seldom prolonged, painful, or debilitating.¹ She does not take to her bed, nor make an outcry, nor need assistance. Among the Dakotas, a child is disgraced by the mother who shrieks or even groans in giving it birth. In many regions, the woman, who expects to have a child, goes away alone and in an hour comes back with it in her arms.

In Tasmania and parts of New Guinea, the new-born infant is buried to its neck in warm ashes or sand. In most North American tribes, it is tied on a board covered with a layer of moss, and there it is kept for more than a year, though taken off every day for the purpose of washing.² A string at the top of the board serves to hang up the baby, and when this is attached to the flexible limb of a tree and also to the big toe of the mother, she can rock the cradle while sitting at her household work.

Savage population is nearly stationary in number. A large increase cannot be continuous because there is no rapid development of industry to supply an increased stock of food. Children are not numerous. A mother with five living children is rare; with eight, very rare. Among the causes of the paucity of offspring in tribes which have not begun to die out, are the frequency of

famines and of seasons with scanty supplies of nutritious food; the excessive toil imposed on the women, and the customs of early marriages, of abortion and of suckling three or four years.

Infanticide is not prohibited by any savage government. It is rare in Africa, common in Australia and America, frequent in Melanesia, and very frequent in Micronesia and Polynesia. In the Hawaiian group, two children out of three, on an average, were abandoned at birth;³ and the proportion was equally large in some other Polynesian groups. In Ratak, no woman, unless a chief's wife, was permitted to rear more than three children.⁴ In the Kingsmill Islands, after a woman had two living children, she usually prevented the birth of others.⁵ The Tukopians did not allow more than two boys to grow up in a family.⁶ A child of cross-blood, that is one whose parents were of different ranks, was dispatched in Polynesia and Micronesia, as was one of half white blood in Australia.⁷ Many Abipone women abandon their new-born infants for fear that otherwise their husbands will take additional wives or run after other women.⁸

Experience has shown that the milk of the mother is insufficient for the maintenance of two children until they are old enough to depend on other food; and therefore in many tribes the birth of twins is considered unlucky; and one at least is sacrificed. Among the Arebos both are dispatched.⁹ The cutting of the upper teeth before the lower ones is a cause for condemning children to death among some African tribes; and turning from side to side in sleep, among some Americans. Deformed children and motherless infants are abandoned everywhere. In the Kingsmill group, poor parents often

expose girls because they would need dowries at marriage.

The frequency of infanticide among savages must not be attributed to a lack of affection on the part of the women. They are generally kind mothers, and when they have once suckled a child, they rarely consent to its death. In many Polynesian islands, they had to choose between infanticide and the starvation of the adults.

SEC. 74. *Son-in-law Shyness*.—A custom almost as wonderful as couvade, to high civilization, is that of son-in-law shyness, which forbids certain persons related by marriage to see or speak to each other. Among the North American savages generally, the Arowaks, the Caribs, and the Arabs, the son-in-law must not look the mother-in-law in the face; and if he has anything to say to her, even in her presence, he must tell a third person to tell it to her; and if there be no third person to serve as a medium of communication, he must look away from her, and talk as if addressing himself to another. When a Kaffir mother meets her daughter's husband she must turn aside and sit with her back to the road until he has passed. The Kaffir wife is not permitted to see the father or uncle of her husband or to pronounce their names. In some tribes of central Africa, the affianced man must not see the parents of his prospective wife. The Mongol or Kalmuck wife must not speak to her husband's father; and the Chinaman must not see his daughter-in-law. In one of the Gilbert Islands, years elapse after marriage before the wife dares to speak to any man save her husband.¹ The rules of son-in-law shyness vary greatly in the persons to whom they apply and the method of their application in different tribes, and are found extending

over a large part of the savage world; but not in any of the tribes composed of feminine clans. They are parts of the system of masculine descent, devised to give to the husband control over his wife, and may have been influenced also by the animosities resulting from the capture of wives.

SEC. 75. *Womanhood*.—Among the tribes which have outgrown the feminine clan, the appearance of womanhood in the young girl, instead of being reserved as a modest secret, is treated as a proper matter for general notoriety or as an occasion of public festivity. She is regarded as a piece of merchandise to be sold at the first opportunity. Her marketable condition is announced by a distinctive girdle or headdress in part of Pennsylvania;¹ by tattoo among the Polynesians, Fijians, Pimas and Gonds; by cicatrices among the Australians; by filing the teeth among the Batta Malays; by breaking out a tooth or several teeth among the Tasmanians, Batokas, and many other tribes; by pulling out the eyebrows and eyelashes among the Apaches; by inserting an ornament in the lip or nose in certain tribes; by an invitation to all acquaintances to call at the tent and congratulate the family among the Dakotas; by procession and a feast among the Mandingoes, Fans, Akkas and Cape Palmas negroes;² by a dance among the Marutse³ and some Californians;⁴ by subjecting the girl to a three days' fast among the Yumas; by flogging her among the Campas of South America;⁵ by burying to the neck in sand for twenty-four hours near San Diego,⁶ and by imprisoning her for months in Alaska and Central America.⁷

SEC. 76. *Modesty*.—Modesty is a conventional standard of propriety, harmonizing with customs adapted to the

climate, dwellings, customs, laws and superstitions of the country. It varies with time and place and general culture. Those tribes which are ordinarily nude, which have only one small sleeping apartment for a family of six or eight persons, and which attach no value to virginity in the girl or to conjugal chastity in the wife, cannot have the same rules of modesty as other tribes with different customs and ideas. In the valley of the Orinoco, the woman is immodest who appears among strangers without a coat of paint. An aboriginal girl there, to please a European visitor, put on a gown, but when some of her tribe appeared she was much abashed and threw off the garment hastily.

The scantier the ordinary clothing of the Zulus, the greater their shame when surprised without any. It has been observed that some nude African tribes are less unchaste, and by civilized standards less immodest than other tribes which are habitually clothed. Fashionable styles of dress in certain parts of South America and the Pacific islands are more immodest than absolute nudity.

The conversation of savages is often very gross, and the same remarks may be made of many of their amusements and customs. From their earliest infancy, children see sights and hear expressions which are carefully hidden in civilized countries. At the most fashionable entertainments of Polynesia and Micronesia, the highly-honored Areoi nobles sing the coarsest songs and act most indecent scenes.¹

SEC. 77. *Nudity*.—Among savages generally the sentiment that nudity is immodest, if not absolutely lacking, is very weak. In tropical climates throughout the year, and in temperate regions, in the hot season, the children who have not arrived at puberty are nearly all naked,

and so are the adults in Tasmania, parts of Australia, the Pelew, Mariana and Torres islands, and among the Ovambos, Batokas, Obongos, Bubes, Lufiras, Wakambas, Kaironoos, Goldas, Botocudos, Orinocos, Arowaks, Tapajos, Puris, and Coroados of both sexes. To distinguish himself from his subjects, the chief of the Musgus wears clothes. The men of Shir, Nuehr, Bari, Mahenge, New Caledonia, and California and the Maori warriors, on military expeditions, are nude and so are the married women of Ganguella, Watusi, Uape, Congo, and parts of Australia and Melanesia, and the unmarried women of Fan, Dor, Nuehr, Dinka, Shillook, Ashira, Obbo, Tupi, Guaype, and parts of Australia and South America. The Mandombe bride, without any clothing save a coat of whitewash, calls on her friends to announce her approaching marriage.¹

The general rule of savage life is that as the wife must be stricter in her conduct than the girl, so also she shall be more careful to clothe herself. In Fiji, the only dress of the marriageable girl is a girdle with fringe three inches long; of the childless wife a foot long; of the wife with a child, a foot and a half long.

The savage woman usually wears no clothing above the waist in warm weather, and a small motive induces her to throw off that below the waist. Thus if she has to walk across a stream where she will be splashed, she takes it off. A Kaffir girl in a mixed company received a present of a new dress, and immediately took off the old one, so that she could put on the new one. In many tribes the women are dressed while away from home or at home entertaining visitors, and nude at other times.

SEC. 78. *Clothing*.—The most common feminine garment is a fringe girdle, the fringe, from three to eighteen

inches long, consisting of flags, reeds, strips of bark, twine, or leather thongs. If beads are procurable, they are much prized for decorating this simple but important article of apparel. Loin-cloths, aprons, short skirts and cloaks are also fashionable, the preferred materials for them, on account of solidity of texture and fitness for ornamentation, being woven cloth or leather; but for lack of these bark cloth is much used.

The Wahehe woman wears a string of beads round her waist with a tail hanging down behind; and it would be highly unbecoming for her to go into company without the tail. The Watuta, Wanyuema, Shillook and Vaté women have string girdles with an apron or fringe in front and a tail behind, and the tail should be longer than the appendage in front. The dress of the obscurely fair sex in the Apono and Ishogo tribes consists of two pieces of cloth, one on each side of the body from the armpits to the knees. These pieces must meet behind; whether they meet in front or not is less important. The Dor women comply with the requirements of modesty, as they understand it, by wearing a little twig hanging down in front from a string girdle. An apron six inches square attached to a similar girdle suffices for the married women of Fan, Shir, Bari, Monbuttoo, Mundrucu and some New Guinea tribes.

The savage in the temperate zone bears with comparative indifference a degree of cold which would cause great discomfort to the civilized man. He not only seems comfortable when nearly naked in a freezing temperature, but when he receives a piece of cloth, he will wear it in cold weather not on the chest or abdomen, which we consider the most sensitive parts to chills, but on the shoulders. Thus are worn the small and

solitary deerskin of the aboriginal Californian,¹ the seal-skin of the Fuegian, and the cloak of the Abipone² and Mbaya women.³

The Eskimos and many North American tribes make leggings, trousers; coats and coverings for the feet with the aid of the needle, but savages generally use no sewed garments. In Polynesia, Australia and Africa, there is no attempt to fit bark cloth, woven cloth, matting or skins, to the body or limbs. The prehistoric Europeans in tilling culture before the discovery of bronze, wore sewed clothing of skins and linen. Nearly all savages go bareheaded; and few wear a covering for the feet.

SEC. 79. *Ornaments*.—For the sake of ornament, the savage loads his nose, lips, ears, wrists and ankles with rings, and his arms, legs, neck and waist with heavy coils of wire. He sacrifices his comfort to his vanity. He invests a considerable part of his wealth in the purchase of an oppressive burden.

A Mittoo man struts about with a chain of half-inch iron welded on his neck, that is if he cannot afford copper or brass, which are more stylish, but are not within reach of people of scanty or moderate means. A Wanyamwuezi girl, to be in the height of fashion, should have a girdle of half-inch hemp rope hidden under a wrapping of fine brass or copper wire. The Bongo covers both arms from wrist to elbow with brass rings, a quarter of an inch thick.¹ The Chumberi woman, if in moderate station, wears a brass collar, weighing at least twenty pounds, soldered on her neck; if rich, the weight should be thirty pounds.² Among the Dinkas, it is not a rare occurrence to see a person carrying forty pounds of copper ornaments.³ If fashionable, a Santal woman should carry thirty-four pounds of metallic ornaments, including

four in each of her bracelets and anklets, and eighteen in her collar.⁴ She would doubtless feel miserable if she should meet a Congo belle with a load of seventy-five pounds, including more than sixty in her collar alone.⁵ The Wanika woman wears a quarter-inch brass wire closely coiled around her leg from ankle to knee; and the Masai girl, besides having such wrappings on her legs, has others of like material on her arms from wrist to elbow. These coils put on tightly when the girl is young, and never taken off, prevent the growth of the muscles, obstruct ablution, cause troublesome sores and hinder all movements. But then it is the fashion. The Taveta girl is content with wire coils from wrist to elbow. The M-teita girl carries twenty or thirty pounds of beads. Such ornaments as are worn in ears, nose, lips and teeth will be mentioned in other sections.

SEC. 80. *Hair Dressing*.—In many savage tribes the hair is dressed elaborately. It is shaved wholly or partly, bleached, dyed, smeared with grease, stiffened with clay or glutinous material, or plaited with its own strands or with twine, in patterns which may be uniform in family, clan or tribe, so as to advertise the wearer's nationality, rank or pedigree. The Andamanese, and some Fijians, Wagogos, Waswahilis and Tasmanians, shave the head clean. Many Redmen shave off or pull out the hair of the head save a spot on the vertex, where a scalp lock is preserved. Much of the head is shaved by the Ovambos, Batokas, Wagandos, Watusi, Watutas, Wisigas, Zulus, Marquesans, Fijians and Hawaiians, leaving crests, coronets, ridges, or spots of hair, or bare spots amidst the hair.

The most elaborate hair dressing is that of the La-tookas, whose hair is interwoven with twine and covered

with beads so elaborately, that years are required to complete the work. In one instance the task was not finished until after a lapse of eight years.¹ Next to the Latookas, in such extravagance, are the Ishogos, Ashangos, Bornus and Fijians, all of which tribes have large mop-like head-dresses which they cannot comb out nor rest on when lying down. They sleep, not with the head on a pillow, but with the neck on a little trestle. The Fijian head-dress is frequently a foot, and occasionally twenty inches in diameter. The Ishogo wears his hair in a cylinder interwoven with vegetable fibre rising ten inches above the skull; and all the hair below the base of the cylinder is shaved off.² The Ashango man and the Monbuttoo woman wear a tower of hair similar to that of the Ishogo, but not quite so elaborate. The Bornu woman divides her hair from forehead to the base of the occiput into three parallel sections, each of which is worked up into a high roll and kept in place with a stiffening of wax.³ The wearers of these mops and baskets cannot comb or wash their hair, and for scratching, must use long bodkins. The Banyai⁴ of South Africa and the Tannese⁵ divide the hair into hundreds of little parcels, and wrap each from end to end with thread, so that the head seems to be covered with twine, six inches long and a sixteenth of an inch thick. The Edeeyah, on the western coast of Africa, makes his hair into curly tufts stiffened with grease and clay, so that his head looks as if covered with a hundred short cigars fastened to the scalp. The Fulah woman has similar tufts colored deep blue. Some Africans shave off part of the hair, and plaster the remainder into clumps, with the shape and size of buffalo horns.

Nearly all savages dress their hair with some unguent. In Abyssinia the preferred material is mutton suet which

has been chewed for two hours. Bear's grease is used by the Redmen, palm oil by the negroes, and cocoa-nut oil by the Polynesians. By the help of washes, dyes and paints, the natural black color of the hair is changed to white, gray, yellow, orange, red, brown, purple or blue, according to the custom of the tribe or the caprice of the individual.

A fashion, that perhaps had its origin in the effort to get rid of troublesome insects,⁶ requires men and women, in many tribes, to carefully pull out or shave off all the hair on body or face, even the eyebrows and eyelashes.

SEC. 81. *Oil and Paint*.—Unable to obtain handsome cloth with which to hide his body, the savage covers it with grease, paint, tattoo and scar. Besides being a protection against cold, insects, sun and rain, a coat of unguent, in most hot countries inhabited by savages, is necessary for full dress. It may indicate the rank of the wearer. Nearly every kind of grease is used for such purposes, including human marrow and kidney fat. The last gives to the Australian the strength and courage of his slain enemy, as well as protection against insects. The Polynesians and Africans perfume their oil, but whether perfumed or not, it soon turns rancid and then, if the man can afford the expense, must be replaced with a new coat.

In the Pacific Islands, turmeric is mixed with the anointing oil, to give a rich brownish yellow color to the body. Black is preferred by the Haidahs, soot by the Thlinkets, black or blue by the Maoris, red by the Indians of the Mississippi basin, red and white by the Australians, Congoese, and Andamanese; and red by the men and blue by the women of Bonny. For festival occasions, the Areoi nobles of Polynesia had scarlet faces

and black bodies. The Ganguellas paint their faces green. The Gain negroes, cover the front of the body with diamond-shaped blocks of alternating hues. The military uniform of Obbo is a combination of white, yellow and vermillion patches or stripes.

In some tribes, the skin, whether greased or not, must be stained. Among the Arabs and many African tribes, the palms, soles and finger-nails are dyed brownish red with henna. The body is stained orange and black by the Botocudos, blood red by the Caribs, and blue by the Bornuese, some Brazilians and some Zinder women. The legs are stained red with blue spots by the Guiana Indians; the backs blue by Tahitian women; the faces yellow by the Aheer women; the lips blue by the Fans, and blue or black by the Maoris; and the gums black by the Watusi and yellow by some of the people of Sind.

SEC. 82. *Tattoo*.—In ornamentation of the savage person, tattoo comes next to oil and paint. It is used with the greatest liberality in the tropics where the general nudity allows it to be seen at all seasons, but is also found in very cold climates, where it is ordinarily restricted to the face. However, it is not always intended for the inspection of strangers. The most complete tattoo is that of the Marquesans, whose bodies, face, scalp, neck and limbs to the tips of the fingers and toes, are covered, the scalp being shaved for the purpose. The Maoris and Mundrucus also indulge in elaborate tattoo. Most of the tattoo of the Fiji woman is between the waist and mid-thigh, where, after she has children, it is concealed by the fringed girdle. The Kayan Dyak woman has a similar decoration, but to exhibit it, she wears a skirt open at the sides. In many tribes, the tattoo is in beautiful lace-like patterns. An imitation stocking

covers the legs of the Pelew and Tahitian women. The tattoo of the Bari negro is like a covering of the fish scales; that of the Kanowit Dyak like chain armor.

The tattoo of the Red Karen is limited to the back; that of the Tongataboo woman to the palm; that of the Ratak woman to the neck and bosom; that of the Nono-mea woman to the shoulder and abdomen; that of the Fan woman to the breast and abdomen; that of the Tahitian man to the breast, leg, arm and hand; that of the Tahitian woman to the leg below the knee and to the arm; that of the Micronesian man to the body and limbs; that of the Toda woman to the chest, leg and arm; that of the Nuehr chief to horizontal wrinkle-like lines on the forehead; and that of the Eskimos, Aleuts, Chookchees and Tungoosees to the face.

Besides its purpose of decoration, tattoo serves in various tribes to designate blood or rank,¹ to give a ferocious expression to the warrior,² to make a record of some brave exploit or notable experience; to consecrate the wearer to a fetish³; to mark the ownership of a slave; to announce the arrival of a girl or boy at puberty, or the admission of a young man into the warrior class; or, as is supposed, to protect the persons against chills.⁴

In Polynesia the process of tattooing is a religious ceremony, and is performed by priests, while the subject is under a taboo or ecclesiastical consecration. Without tattoo the man has no favor with the gods; and he cannot enter a temple; in Pelew the girl cannot marry.⁵ Among the Redmen, the warrior is often seen with his totem tattooed on his breast. The tattoo of the totem of a hostile tribe under a tomahawk or knife shows that he has slain an enemy. A Tahitian had all the islands known to him tattooed on his body, and thus

he carried his map of the world with him. A Polynesian wife was tattooed with the emblems of the male ancestors of her husband; she was a heraldic record.⁶

Many tribes require their members to be marked with scars, usually made by rubbing a cut through the skin with some pigment or acrid mineral, or by searing it with red-hot stone or metal. The breast and shoulders are the parts on which the scars are placed by most of the scaring tribes; but the face, abdomen, shoulders, hips, arms and legs are also used. The patterns include straight lines, crescents, circles, and stars on a level with the adjacent skin, and lumps like peas, small and large beans, fingers, and eggs. They are produced in many different ways, one process being to thrust a needle through the skin, twist it and fasten it in the twisted position until the lump becomes permanent.⁷ The greatest number of scars habitually worn by the average man is perhaps in Bornu, where he has ninety-one, including twenty on each side of the face, between the mouth and the ear, six on each arm and leg, nine on each side above the hips, and one in the center of the forehead.⁸ The cicatrices of the Rubengas are compared in size to hen's eggs;⁹ those of the Kordofanese to pigeon's eggs;¹⁰ those of New Guinea to fingers.¹¹

SEC. 83. *Mutilations*.—In Africa, Australia and Micronesia, we find the habits of breaking out, chipping and filing the teeth. Among the reasons given for these customs are the desire for a fashionable lisp,¹ the disgrace of having mouths like those of apes,² or of eating with all one's teeth like a horse,³ and the duty of making one's mouth resemble that of a cow.⁴ Some of the tribes which draw their reasons from cows do not possess those animals; as they break out teeth in both jaws, so they do

not imitate their pretended models closely. Among the causes that may have led to the origin of these customs are the marking of captives, mutilation in mourning, or the subjection of young people to tests of endurance.

The canine teeth are taken out by the Penangs; the two upper middle incisors by the Micronesians, Batokos, Aponos, Ambriz, Missurongos, Ishogos, Wagogos, Matongas, Marutse men and Ashango women; the two lower middle incisors by the Bongos, Dinkas, Shirs, Wanyamwuezi, and many other tribes of Equatorial Africa; the four lower incisors by the Shillooks, Wanyoros, Latookas, and Bari men; the four upper incisors by the Mushukulumbos, and the four incisors and two canine teeth of the lower jaw by the Karagwahs.

By the Fans, Mushukungus, Apongos, Ashiras, Bushingas, some Congoese, and various tribes of New Guinea, all the front teeth, not broken out, are filed to points, "making their smile like that of a crocodile," as Livingstone says. The corners of the lower incisors are chipped off, and those of the upper incisors are filed off by the Niamniams, for the purpose, as they explain it, of catching secure hold of their enemies in battle. In several tribes of the Congo basin, a diamond-shaped opening is broken out between the middle upper and lower incisors, perhaps, as Burton thinks, to make a place for a pipe. Triangular openings are broken in the incisors by the Damaras and the Ganguellas.

Among the Eskimos, Greenlanders, Fuegians and many North American savages who have reached middle life, the teeth are worn nearly to the level of the gums, probably in consequence of the sand and dirt in their food. The custom of filing down the teeth however is practiced by the women of Timorlaut⁵ and Suma-

tra⁶, and by some Indians of California⁷. Teeth worn to the level of the gums have been found in the skulls of the prehistoric inhabitants of France, Belgium and Denmark, and of the ancient Egyptians.

Brass rivets in the teeth and little copper plates fastened, with rivets, on the teeth, are found among the Dyaks.⁸

The teeth are stained blue, yellow or purple by the Fulah women, the three colors being sometimes found in one mouth. The Dyaks stain theirs black in mourning; and teeth stained red or black are not rare in the Micronesian and Melanesian islands. The teeth of Malays are prepared for taking dye, by filing off the enamel, and are generally discolored by the betel quid.⁹

The custom of flattening the infantile skull, between boards, has prevailed among the Samoans, Hawaiians, Nicobarese, Caribs, Araucans, Quichuans, and many Redmen of modern times as well as among the ancient Scythians, and the prehistoric inhabitants of France, Belgium, Wales, Hungary, Silesia, Southern Russia and Northern Africa. This distortion of the skull, or unmistakable traces of it, have been found in all the continents save Australia. It may have had its origin in the habit of tying the head as well as the body to a board. Such fastening is convenient when infants are to be carried on horseback,¹⁰ and might be useful as a precaution for sudden attack, when the mother wants to escape leading a child of five or six with one hand while, with the other, she carries a suckling.

For the purpose of flattening its skull, the infant is tied with its back on a board on the upper end of which is tied a shorter board which presses on the forehead. The head takes the shape of a wedge with the edge at

the vertex. Though this pressure continues for a year, the shape thus given is not permanent, as the skull gradually reverts towards the natural type, which however it never reaches. After having been accustomed to the pressure, the child cries when it is taken off.¹¹

In the head-flattening tribes, a head of natural shape is considered ugly; and the privilege of beautification by the flattening process is denied to slaves.

The Greenlanders, Hottentots, Tahitians and Sumatrans admire breadth in the nose, and press it flat, and the Botocudos mash down the nasal bones.¹²

Besides gashing themselves in mourning, many savages cut off a finger joint until they have lost as many as they can spare. Some Australians tie a string tightly round the little finger of the left hand of the newly-born girl infant, and in a few days it is severed. The reason given for this mutilation is that that finger is in the way when the woman winds up a fish line.

The women of the Congo,¹³ and Loando desire to have pendent breasts, and pull them and tie bands over them so as to make them a foot long. The Wasagara, Sanda and Siamese women wrap cloths tightly round the body just below the armpit, so as to prevent the natural shape of the breast from being seen.¹⁴ The Samoan women are nude above the waist and carefully train the nipple so that it shall turn up.¹⁵ Singular mutilations about which our information is not very full are the amputations of the mammæ of male Zingeros in Shoa,¹⁶ and of the Akalunga and Kasangulowa women,¹⁷ the boring of the nipples of warriors in Georgia for the insertion of pieces of cane¹⁸; and the piercing of holes in the chest by the Bongos for the purpose of wearing wooden skewers there.¹⁹

Some Sumatrans pull their ears to make them stand out from the head; and various South American tribes stretch their ears so that it is said in exaggeration that a man can use one ear for a mattress and another for a covering while he sleeps. The Melanesians, the Indians of Georgia, and the Kukis cut out the interior lobe of the ear to make a hole for inserting ornaments. Some tribes pierce a dozen holes for rings round the border of the ear, or cut slits and wrap the separated edge with wire. The weight of the ornaments is so great in many cases that it is necessary to support the ear by strings or chains over the tops of the head.²⁰

Among the articles carried in the ear holes are hollow cylinders three inches in diameter and four inches long by the Caroline Islanders; tobacco pipes by the Kusaye Melanesians; pin-cushions by the Arowaks; nosegays by some Amazon Indians; fish-bladders, live snakes and feathers by the Indians of Georgia; shell disks attached to stems four inches long and a quarter of an inch thick by the Marquesans; pegs like a cigar in size and shape by the Monbuttoos; brass studs by the Waswahili; large brass disks by the Tavetas; and gourd-necks full of tobacco by the M'sagara.

These methods of ornamenting the ears are not limited to the women, but are practiced as extensively by the men, and are found in nearly all savage tribes. Alone among the Polynesians, the Hawaiians did not punch their ears. The ears of the people in the frigid zone are usually hidden on account of the cold, and therefore are not used as vehicles for ornaments.

The savage nose carries ornaments thrust through the septum or the wings, and in some few tribes through the bridge. A hole in the septum is decorated with a por-

cupine quill, a feather or a stick eight inches long obstructing the nostrils, so that the wearer is compelled to breathe through his mouth;²¹ or it supports a ring two inches in diameter, and then he cannot eat or drink without lifting up the ring; or it offers a passage for a string which is tied at the back of the head.²² The lower part of the septum is cut out by the Klickatats.²³ The only ornaments worn in the nostrils are rings. In New Zealand, feathers and sticks decorate a hole in the bridge of the nose,² and in Mallicollo, Cook saw a cylinder of quartz an inch and a half long carried in the same place.

Both lips and the cheek, near the corner of the mouth, are pierced for studs, pegs, blocks, rings or bead strings. Double-headed bone studs decorate the mouth corners of the Eskimos, and when the studs are out, the saliva escapes. The lower lip supports a bone stud among the Unalaskans and the Caribs; a piece of cane among the Georgian Indians; a cylinder of quartz four inches long among the Latookas; a cylinder of the same material, three inches long and three quarters of an inch thick among the Mittoos; a string of beads among the Kodiaks; a bung two inches in diameter among the Botocudos (so named from "botoque" Portuguese for bung); and block labrets three inches long and two wide among the Ahts. Dall mentions one such labret five inches long and two inches wide. This block drags the lip out of place, exposes the teeth and gums to view, and presses the teeth out of place; and when taken out, the upper portion of the lip hangs down like a string. The Batoka women wear pulley-like rings three inches in diameter in both lips which then stick out horizontally like the bill of a bird; but when the wearer laughs, the upper ring assumes a vertical position, partly hiding the eyes and

allowing the end of the nose to be seen through the ring.

Circumcision was common in the valley of the Nile as early as 3000 B. C.,²⁵ and was practiced by the Arabs, Libyans and other oriental peoples at the earliest date known to history or tradition. By Spencer, its origin is attributed to the policy of taking trophies from male captives without diminishing their value for slave labor. Lippert thinks the sacrifice of blood in worship may have been the main motive. Similar mutilations, some of them more painful and more remarkable, were practiced in Australia and the Pacific Islands.²⁶

SEC. 84. *Social Development*.—In social life, as in industry, we are not able to trace much development within the limits of any savage tribe. In some few countries we find traditions of customs ruder than those prevalent in modern times, but these traditions are too vague or too doubtful, in the date of origin, to be trustworthy. In this as in other developments of savage culture, we must find the main traces of progress not in the advance of one tribe, but in the comparison of the various conditions of different tribes. The higher have grown out of the lower phases.

We have seen that the family, in the modern sense of the word—that is, the man with his wife or wives and children—as a distinct component part of the State, either does not exist in the lowest known tribes, or occupies a very unimportant place as compared with its position in civilized countries. The earliest social organization, known to us by inference and not by direct observation, was the promiscuous group, which gave way by a small change to the feminine clan. The latter retained the group as the main feature of the social organ-

ization, preserved the rule of maternal descent, and permitted half of the previous promiscuousness. The modification was the least possible to be a substantial modification; it was a great reform in the direction of the least resistance.

In the course of progress, the feminine clan, having become unsatisfactory, gave way to another institution, a little higher on the scale of social development. Its successor, the masculine clan, retained the rule of tracing descent from one parent exclusively, but transferred it from the maternal to the paternal side. It restricted the polyandrous habits of the women in the earlier condition, but permitted the men to enjoy most of their previous polygynous privilege. It was another great reform in the direction of the least resistance. It gave the wife as an exclusive possession to the husband, made her chastity precious, and converted her and her virtue into articles of marketable value. It founded the family which, though long subordinate to the masculine clan, finally supplanted it.

Monogamy, as the only legal sexual relation, is unknown in the large savage families—including Redmen, Negroes, and Australians,—and also in those families uninfluenced by contact with a higher culture. Among other tribes it is rare. Although we may say in general terms, that it does not belong to the domain of savage life, still, attention may here be called to the fact that it continues the policy adopted in savagism, of placing more and more restriction on primitive promiscuousness. The feminine clan, the masculine clan, the polygynous family and the monogamous family form a series of increasing checks upon the sexual relation.

CHAPTER V

INTELLECTUAL LIFE.

SECTION 85. *Capacity*.—The influence of advanced culture shows itself in many points, including the size of skull, which in the modern Euraryan has an average internal capacity of ninety-one cubic inches; in the African eighty-five, and in the Australian seventy-nine.¹ The first has five and a half per cent. more brain than the second, and twelve per cent. more than the last. Such a cerebral superiority in favor of the white man, and the advantages of his geographical position, accumulating their influences for thousands of years, account for his higher mental development.

The gratification of the physical wants, and the exercise of the coarser passions in war and the chase, occupy a much larger place relatively in the life of the savage than in that of the civilized man. The former has no occupations or amusements of a refined, intellectual character, no art, no science, no literature, no theater, no book, no philanthropic institution. He lives in a small world.² Such few pleasures as he has are much weakened by the dominant conditions of insecurity, distrust, and animosity.

As compared with the civilized man, the savage spends much of his time in a condition of mental torpor.

He has little continuity of thought, little depth of sympathetic feeling. His mental condition is half-way between that of the civilized man and that of the brute. So soon as a few physical wants are gratified, he becomes listless. Dr. Pickering who, as ethnologist of the Wilkes Exploring Expedition, had become familiar with many tribes, said the Fijians were the only savages, within the range of his observation, "who could give reasons and with whom it was possible to hold a connected conversation."³ The average savage mind soon tires when led into new subjects of conversation; and for this reason, the attempts of scholars to investigate the languages, religion, and customs of low tribes often yield very meagre results. The informants are worried and confused by inquiries about the causes of their customs about which they have never reasoned. The East Africans lose their patience within ten minutes, when questioned so long about their system of numeration.⁴ The Abipones soon grow weary of examining any confused subject.⁵ The Aht of British Columbia, after a few minutes of questioning about matters requiring any effort of thought or memory, appears to rock to and fro out of mere weakness.⁶ The savage finds great difficulty in keeping up any steady intellectual effort, especially in unfamiliar lines of thought. His digestive system is better suited than that of the civilized man for alternations of excessive repletion and prolonged hunger, but this physical irregularity is less potent, than mental instability, in rendering him averse to constant toil. He must be exposed to civilizing influences for generations, before he acquires the intellectual energy needed to fit him for high industrial productiveness. The inheritance of such energy by the mass of the people is a distin-

guishing characteristic and most valuable possession of civilized life; the lack of it in the savages, is a leading cause of their gradual extinction.

On account of the weakness and unsteadiness of their reason, men in a low condition of culture are unable to form distinct conceptions of the remote future consequences of their conduct, or to organize extensive and durable political or industrial combinations. They care little about logical consistency; they make conflicting statements without perceiving that the conflict implies error; and they do not try to lay down fundamental principles with which their actions and words must harmonize. The Malagasy, who has a high place in savagism, prays to his ancestors,⁷ and yet says that he will cease to exist when he dies.

The Damara who is exceptionally stupid, though perfectly familiar with "an infinity of local details" about the geography of his country, has no map of it in his mind. He may know the road from A to B, and from B to C, which last is equally distant from the other two points, and yet he has no idea of a straight line from A to C.⁸ However, such stupidity in regard to travel is rare among savages; most tribes are acute not only in their perceptions and memories, but also in their general ideas and reasonings about the topography of the regions in which they live.

His keen senses, his open air life, and his habit of watching his game and spending much time in hunting and warfare, train the savage, notwithstanding his usual mental torpidity, to observe the face of nature very closely, and to correctly interpret signs that would not be observed by civilized men, or would have no meaning for them. He recognizes individual men, horses, and cows by their

tracks; he can follow each along a dusty road over which many others passed afterwards; can tell whether they were alone or in company, and how long a time approximately has elapsed since the track was made. Every pebble knocked from its natural resting place, every twig broken, and every plant stem crushed, has something to tell him. Civilized men never learn to equal the savage in such perceptions and indications; they cannot give all their attention to the observation of such phases of nature. Because of a lack of training for his reason, the savage is impulsive. In him, the emotions are relatively stronger than in the civilized man. It has been said of him that "He has the passions of a man and the reason of a child;" and that he "has the incapacity of infancy, and the unpliance of old age."

Although the Malays and aboriginal North Americans are stolid in their manner, the lower races generally are often controlled by inconsiderate impulse. They are ready to give way to the passion of the moment. They can be readily influenced by any person who understands how to turn their attention to some minor prejudice, connected with the main question under consideration. They laugh and cry easily, and can suddenly turn from the hilarious to the lachrymose mood and back again, under the influence of suggestions that would have no effect on the average civilized mind. The most sincere lamentations at a Polynesian funeral are sometimes interrupted by a little incident such as the turning of a bug to escape at the sight of another bug, and there will be a general outbreak of the heartiest laughter, which will suddenly stop, to be followed by unanimous howling of the most lugubrious tone. It is not discreditable to the Maori or Fijian warrior to shed copious tears about

slight vexations; or to give way in the presence of strangers, to the most furious anger when he has stumbled over a stone. The negroes, negritoës, and Polyne-sians are boisterously merry; they laugh immoderately at trifles⁹ and are always frolicking. The Kamtschatkans are excitable and almost hysterical in temper;¹⁰ the Papuans are "impetuous;" the Fuegians are "loud and furious talkers;" the Andamanese are "frightfully passionate;" the Fijians are "extremely changeable in disposition;" the common conversation of the Arabs resembles a continual quarrel; and angry disputes ending in violence are common among the Bushmen.¹¹

Many tribes are wonderfully dull in their arithmetical conceptions. Of the Damaras, we are told that if one has several sheep to sell he will not take a round sum for the lot, but must be paid for each animal separately. Any other method of procedure confuses him and leaves him in doubt whether he has not been cheated. Thus when he has two sheep for sale and his price is two plugs of tobacco for one, he cannot comprehend that four plugs will pay for two. He insists on receiving payment for one, which he delivers, and then he is ready to accept the other two plugs for the other sheep.

In a similar manner the Redman sells his furs. At the close of the hunting season he takes his bundle of pelts to the trading-post, but he does not sell the whole lot at one bargain. Keeping his bundle in his tent he there unties it and takes one pelt at a time to the white trader and gets his pay for it, before exhibiting another. His main motive for this method of procedure is his distrust of his powers of keeping a complicated account either in his head, or by any system of marks. An Eskimo, when asked how many children he had, tried unsuccessfully to

count them on his fingers, and then asked his wife.¹² Savages generally do not know their ages. The Greenlanders keep count of the years till about twenty, but not afterwards. In Western Africa it is considered impious to number the years.¹³

SEC. 86. *Preponderant Present*.—Savages think much of to-day and little of to-morrow. They have a scanty regard for the remote future. They are the children of the moment. They want immediate gratification. Of the Brazilian Indian we are told that "he thinks of nothing except the matters that immediately concern his daily material wants;"¹ and of the East African that his mind "will not, apparently cannot, escape from the circle of sense, nor will it occupy itself with aught but the present."² The Bedouin "judges of things as he sees them present before him, not in their causes and consequences."³ Crantz tells us that the Greenlanders give no thought to anything except the occupations necessary to their existence.⁴ Baker observed that the Nyanza negroes had little care for anything beyond the gratification of their physical wants.⁵ Fritsch calls the Bushman "the unhappy child of the moment."⁶ The low savage's disregard of the future is a prominent feature of his mental condition, and a necessary result of his mode of life. He has no facilities for accumulating property, nor any mode of protecting it after accumulation. There are regions in both Americas, in Australia and Africa where the aborigines seldom have a supply of food sufficient for a day in advance. He who obtains a supply is required by public opinion, to divide with his neighbors. It is accumulation that gives importance to the future, and stimulates man to weigh the relative values of the gratifications of to-day and to-morrow. Such calculation

gives to civilized communities a thoughtful seriousness very different from the childlike playfulness of savages. The remark has been made that after the aborigines of South Africa have lived for a time in the service of white masters, and have learned the advantages of preparing for the future, they lose their previous jovial manner, which had been the outgrowth of their early blindness and indifference to all save immediate results.⁷

SEC. 87. *Early Maturity*.—In many tribes the children, and especially the boys, when eight and ten years old, must begin to hunt berries, roots, seeds, and small birds and quadrupeds, for portion of their food ; and it is expected that before fifteen they shall acquire much expertness in catching and killing small game. By this practice, and perhaps also by a peculiarity of their nature, they are relatively more mature than civilized children of the same age, and their observant faculties are specially acute. Before they are old enough to walk, Australian children are taught to dig for worms which they eat.¹ In the basin of the Gazelle River, Africa, boys eight years of age often wander away from home because they can supply themselves with food.²

As Spencer says, "The primitive intellect is relatively simple, develops more rapidly and earlier reaches its limit" than that of the civilized man.³ The children are more precocious mentally and physically. The Equatorial African children are, according to Winwood Reade, "absurdly precocious ;"⁴ of the West African, we are told that they are remarkably sharp before puberty, and of the Australian, that their mental vigor begins to decline when they have reached the age of twenty.⁵

SEC. 88. *Jollity*.—When in company, savages generally are noisy chatterers, fond of gossip, ready to find

amusement in any trifle, and easily diverted from one feeling or train of ideas to another entirely different. They are highly excitable; they talk about trifles with a vehemence of manner that would not be called out among civilized people unless the subject were one of great importance. They shout with amusement in the course of their ordinary conversation, and when seen from a little distance, they seem to be the happiest of mankind; but the enlightened spectator who approaches and listens to their talk, wonders at its insipidity.

Of the Polynesians, Gerland tells us that "the general cheerfulness and jollity, the wish to please and to amuse one another, were general characteristics which attracted the most attention among the early European voyagers. While in company, they were always engaged in lively conversation. They expressed their feelings with so much animation; they seemed so innocent and amiable; they were so cordial, so sincere, so anxious to anticipate the wishes and thoughts of their companions, that the strangers were dazzled, and unable to see the weak side of their hosts. Among themselves, in times of peace, they were friendly; and their rare disputes were easily arranged. Their jovial animation was caused not by superior purity and harmony of the moral sentiments, but by an excitable disposition and an openness to new impressions. They were also susceptible to frequent attacks of melancholy; and their active imagination surrounded them with terrors, and even killed them when they were told that they had broken a taboo, or had been cursed by a noted sorcerer. Their feelings and purposes changed suddenly from one extreme to the other. Light-hearted joy was succeeded almost instantly by gloomy despair, extravagant hopefulness by torturing

fear, the warmest attachment by the bitterest aversion, and the meanest parsimony by the most senseless extravagance.”¹

The savage delights in a racket. A noisy toy is sure to please him. He wants rattles and fire-crackers. A North American Indian amused himself for an hour by striking matches and watching them ignite and burn out. In Polynesia, men and women play with dolls and toys made for civilized children of eight or ten years.² Writing of the Marquesans of Typee, Melville says, “I was more and more struck with the light-hearted joyousness that everywhere prevailed. The minds of these simple savages, unoccupied by matters of graver moment, were capable of deriving the utmost delight from circumstances which would have passed unnoticed in more intelligent communities. All their enjoyment indeed seemed to be made up of the little trifling incidents of the passing hour. What community, for instance, of refined and intellectual mortals would derive the least satisfaction from shooting popguns? The mere supposition of such a thing would excite their indignation, and yet the whole population of Typee [a valley in the island of Nukahiva] did little else for ten days [after Melville showed them how to make the plaything] but occupy themselves with that childish amusement, fairly screaming too, with the delight it afforded them.”³

SEC. 89. *Politeness*.—Among savages, the Polynesians are the most attentive to the forms of social intercourse, and, partly for that reason, charmed the early European navigators in the Pacific. The Tongans and Samoans are specially noted for “grace and dignity of deportment;”¹ on the other hand, the North American savages are distinguished for their stolidity of manner, and apparent

lack of sentiment in their social relations. They meet and part without demonstration of feeling, and this even when the separation is likely to be for months, or when a number of warriors are about to start on a highly dangerous expedition.²

Savages generally, and especially those of North America, seem to derive little pleasure from the matrimonial and parental relations.³ There is no show of tenderness between husband and wife; and relatively little between parent and child.⁴ Maternal affection of course exists, but many influences tend to weaken it towards the boy after he has reached the age of ten; and usually the children act as if they had little regard for the mother. It is worthy of note however that the most sentimental of all oaths is that of the stupid Damara, "By the tears of my mother."⁵ The Mandingo says "Strike me, but do not speak ill of my mother."

The Maoris have a custom called "tangi" (g hard) which requires intimate friends, when meeting after a long separation, to begin with lamentation and weeping, as if grieving over the relatives lost or the sufferings endured since they previously met. Then, by mutual consent, they suddenly turn to a merry mood and so continue until perhaps some misfortune is mentioned when they again have a lachrymose fit. A similar custom exists in Greenland and in Florida.⁶

Sec. 90. *Salutations*.—In many tribes, the subject kisses the hand of the chief, when admitted to his presence; in others, not being allowed to come near enough for that, he must kiss his own hand. The latter practice was common in ancient Rome, and suggested the word "adorare," to adore.¹ Where equals sought to kiss the hands of each other, and each refused to let the other

have his way, they would grasp and shake hands as a compromise. In welcoming a visitor, the Bafiote stretches out his arms and claps his hands together repeatedly; ² the Javan closes his hands and raises them to his forehead; ³ the Veddah bows and touches his forehead with his right hand. ⁴

When addressing a chief, the common Congoese kneels, turns his face half aside, stretches out his arms as if in supplication and, at the end of every sentence, strikes his hands together. ⁵ When approaching his ruler, the Dahoman crawls on hands and knees, as does the Siamese. The Batokas, Balondos, Kargué's and Watusis salute superiors by lying down on their backs and rolling from side to side, as a little dog does before a big one. Thus the idea of unconditional submission is conveyed to the savage as it is to the brute mind. ⁶ In Tongataboo and in Fundah, the common man meeting a chief lies down and puts the great man's foot on his neck. ⁷ In Tonga, he merely kneels or stoops and with his hand touches the sole of the chief's foot. When speaking to his chief the Hawaiian, the Khond, the Malagasy, the Chibcha, ⁸ and the Borghoo lie flat on the ground. The Polyne-sians and the Malays generally crouch down when addressing their superiors. ⁹ When equals meet in Ashantee, they squat down and rub their hands over the ground, as if in preparation for prostrating themselves. ¹⁰

In Congo, the warrior who meets his chief, kneels and kisses the earth, while his superior sprinkles dust over the head and arms of his kneeling subject. In Balondo and on the lower Niger, the common man kneels and rubs dust on his arms and chest, while the chief makes motions as if he were rubbing dust on his own arms and chest.

He who throws dust over himself, humiliates himself and relatively exalts the person before whom he does it; and in many countries honor is paid in that way or in motions suggestive of it. The Turkish army officers, at a military review, go through the motions of throwing dust on their heads before the commanding general; ¹¹ as Joshua and the elders of Israel "put dust on their heads" before the ark.¹² In Wasua, the inferior meeting a superior, rubs a ball of clay first on one arm and then on the other.

The inferior, meeting his superior in Fiji, steps out of the way and squats down with his back to the path, thus indicating submissiveness.¹³ On the Isthmus of Panama, the speaker turns his back to the person spoken to.¹⁴ In Polynesia, the inferior must never get on a higher level than his chief, nor let his shadow fall on him. As any covering might conceal a weapon, the inferior must appear naked before his superior in Polynesia and Africa.¹⁵

As a mode of salutation and an expression of affection, the kiss is unknown to the aboriginal Americans,¹⁶ Africans,¹⁷ Polynesians, Melanesians, Malays and Eskimos,¹⁸ as it is to the Chinese and Japanese.¹⁹ Instead of kissing his mistress, the Polynesian or Malay puts his nose at the side of hers and rubs it or smells her cheek. This process has been called the Malay kiss. In the Philippine Islands, New Caledonia and parts of Southeastern Asia, lovers exchange scarfs or handkerchiefs so that each has the perfume of the beloved.²⁰ On Brumer's Island and in parts of New Guinea, friends at meeting salute by pinching each other's noses, and scratching each other on the body.²¹

In the imagination of many tribes, one of the greatest dangers of human life is that some of a man's rubbish,

such as spittle, a clipping of hair or nails, a remnant of his food, or a piece of his clothing, may fall into the hands of a sorcerer, who, with its aid, can bewitch him into disease or death. To give one's rubbish to another is a mark of the greatest confidence and submission; and this idea is perhaps the basis of the custom of saluting a person by spitting on his hand or in his face, as in the upper part of the Nile valley²² and among the Payaguas,²³ or by spitting in one's own hand and rubbing it over the friend's face, as among the Eskimos.²⁴ In some Moslem tribes of Northern Africa, the chief honors his courtiers by squirting his saliva over them,²⁵ and the Berber, when he wishes to show special honor or affection to a child, spits in its face.²⁶ In Ashiro, the guest, when taking leave, spits some chewed sugar cane into the hand of his host.²⁷ In Alabama and in the Andaman Islands, friends, when meeting, salute by blowing into each other's faces, perhaps a remnant of the spitting process.

In many tribes the mode of address varies greatly according to the relative ranks of the persons meeting. The Samoans use the reverential plural to superiors, and give the title "chief" to equals. The aboriginal Javan has a common, a classic and a court dialect or set of phrases, the first being used to inferiors and the last to superiors. The Hottentots address one another as "brother."

SEC. 91. *Education*.—In the North American tribes, infants are taught to weep in silence, and the white visitor is surprised and amused by seeing a child shedding tears freely and expressing intense misery with its facial muscles, while not making the least sound. The process of instruction in silent weeping is simple. The child's "mouth is covered with the palm of the hand while its

nose is grasped between the thumb and forefinger, until the little one is nearly suffocated. It is then let go, to be seized and smothered again at its first attempt to cry. The baby very soon learns that silence is its best policy.”¹

Savage children are not trained at home in table manners, refinement of speech, kindness, honesty and magnanimity; and they get no systematic moral training elsewhere. In the conduct and language of the adults whom they observe, violence, treachery and falsehood, are honored; while mildness and regard for the feelings of others are treated with contempt. Their plays include robbery, battle and cruelty. In tribes which steal wives, the little boys club and drag away the little girls. Live animals are given by the parents to the children to be tortured. There is no religion that teaches virtue; there is no conception of virtue save getting all you can for yourself and your family, clan or tribe, and doing all possible injury to others.

When six or eight years old, the boy is emancipated from the control of the mother, who after that time must not strike or threaten him, nor in any way check his insolence or violence, which are applauded by the father and uncles, as evidences of spirit and courage.

In regard to the habits of the animals on which the savages depend for food, the boys receive thorough instruction, not by direct teaching, but by overhearing the common conversation among the men. The children have games in which they imitate the cries and calls of all the quadrupeds and birds known to them, until they acquire such skill that they can deceive the animals.

In savagism as in civilization, little girls are brought up to be the companions and assistants of their mothers and, even where more prized than boys on account of

their pecuniary value, are always treated as inferior beings, destined to render servile duty to the other sex. They inherit from nature modest impulses, confirmed by the example of their mothers and other women, but they are accustomed from their earliest years to hearing the coarsest speech from the men, and to seeing almost daily many actions that would be considered most gross offenses, if done publicly, in any civilized community.

SEC. 92. *Morality*.—In the lower culture steps high morality is neither inculcated by the priests nor attributed to the spirits or gods. To the savage, divine goodness means nothing save favoritism to a person. His god will aid him to rob and assassinate an unoffending stranger, and will protect him from punishment for the most unjustifiable and outrageous crime. A Bushman said it was good for him to steal another man's wife, and bad for another man to steal his wife.¹ A tribe of the Chibchas² and some savages of Hindostan³ consider no offering more acceptable to their divinity than a share of the spoil obtained in a murderous raid. A young Abyssinian who had not risen above savage ideas complained that "God must be angry with me for I have only twice attempted to rob and on both occasions have I been punished."⁴ The Tahitian religion, which in general character is the most advanced of all savage religions, has no moral teaching.⁵ No savage tribe has a definite belief in future reward for virtue or punishment for vice.

The ethical standard cannot be high among men who limit their idea of mutual fidelity to their own tribe, clan or village; who treat all persons outside of that limit as proper subjects for robbery and murder; who regard the possession of a scalp of any person outside of their tribe as a title to the highest honor; who despise the man

who has never killed a human being; who delight in torturing their captives; whose gods are detestable demons; and who expect to continue through a long future, the brutal ferocity they have exercised in this life. It is a great mistake to imagine that as "the primitive man had few duties, he was relatively pure."⁶ The more primitive the man the more impure; the less he knew of his duties to his fellows, the less he cared for them. Purity consists not in brutish ignorance of obligation to our fellow men, but in knowledge of it and careful regard for it.

While most of the low savages are bloodthirsty, violent, cruel, regardless of the rights of aliens, and tyrannical to their women, there are exceptions. The Eskimos generally know nothing of war, and usually live peacefully and happily among themselves. Of the Hill Dyaks, Low says, "Crime is so rare among them that its punishments are known only from tradition; and they live at present [1848] in a state of happiness and contentment which perhaps is at this time enjoyed in so high a degree by no other people upon earth."⁷

Schomberg, speaking of the aborigines of British Guiana, says that "though civilized men possess infinitely higher blessings, they lack the pure morality of these savages who have never come into contact with Europeans, and have not learned the vices of civilization. At home among these people, I have seen peace, quiet, and happiness, the simple love of husband for wife, of parents for children, of children for parents, sincere friendship, boundless gratitude, expressed not in empty words, but cherished in true hearts. They need no lesson from civilization in virtue; they live in it but do not speak of it. Their word is their deed; their promise is their conduct."⁸

SEC. 93. *Amusements*.—Music and dancing are found everywhere and in many tribes are the chief amusements. Savages are averse to much exertion either physical or mental. Such games as ball, wrestling, boxing, bowling, and racing afoot are not general among them.¹ They have no cards, checkers, chess or backgammon. We do not derive from savages any amusement requiring much intellectual exertion, nor, so far as known, have inherited from them any exercise requiring much skill, such as cricket, baseball or boxing. The Araucans² and Redmen east of the Mississippi³ have games of ball, and the Redmen west of the Mississippi have a game played with a hoop and spears. The Maoris have kites, skip ropes, swings, whip tops and cats' cradle. Among the tropical Polynesians we find wrestling matches, cock-fights, and surf bathing. Of the last, Moerenhout says, "Among the exercises of strength and skill, practiced by mankind in various countries, I know none more exciting or astonishing at first view than this. Usually they have a board three or four feet long with which they swim out beyond the line of the breaking surf, and then watching the waves, and diving under the smaller ones, they wait for one of the largest. Upon the summit of this one, announced to them by the shout of their friends on the beach, they come towards the land and it looks to the spectator as if they must be crushed, but before the wave breaks, they turn and go out to sea again, while the surf tumbles over and dashes with a great roar on the sand."⁴

The favorite swing of the Dyaks is a single cord with a loop at the lower end, supported by three long bamboo poles fastened together at the top. A strong man puts one foot in the loop; another man clings to him, and

others catch hold wherever they can, until there are a dozen or more; many of them uncomfortable with their burdens, and struggling to get rid of them, amidst general laughter and shouting of participants and bystanders.⁵ The swing of the Hervey Islanders, similar in pattern, is attached to a tall leaning cocoa tree, and has a similar cluster of persons for its load.⁶

The dance, often of a religious character, has a prominent place among the Indians of North America. The steps are stamps and rude hops; the common figure, movement in a circle. Music is furnished by a drum, rattle or monotonous chant. In some tribes men and women participate, in others men only. Every important expedition whether for war or the chase is preceded, and every successful one is celebrated, by a dance. Stupid as the Indian dance seems to the civilized observer, yet if one Redman starts with his stamping and bark-like chant, the rhythmical movement seems to impress the villagers greatly and soon most of them are at his heels imitating his example.⁷ Many of the savage dances are obscene in their character.

Savages are fond of gambling and risk much of their little property in betting on games of chance,⁸ on cock-fights,⁹ and where they have them, on games of ball and hoop. Among the Australians the favorite game for little boys is stealing wives; among the Redmen it is scalping enemies; in the Eskimo region, it is building snow huts; in Guiana, it is leading a large spider about by a string.

SEC. 94. *Poetry, etc.*—Savage tribes generally have few interesting legends, few notable traditions of tribal achievements, and no poems or samples of oratory transmitted from generation to generation. Indeed there are many

tribes without any of these intellectual productions, so far as is known. In poetry, perhaps New Zealand surpasses any other savage region. Waitz says, "Although rude and coarse in form, the mythical songs of the Maoris, given by Grey are, in substance, not inferior to those of ancient Greece or mediæval Germany. . . . In the songs of New Zealand, blood revenge in its fiercest form and even cannibalism appear, but on the other hand, we observe the warmest family affection. To find a beloved sister, mother or wife, the hero travels over the known world, goes down into hell and climbs up to heaven. Fancy, wit and descriptive talent are all found here."

Poetry occupies a prominent place in the life of the Tahitians and Hawaiians. Among them a song accompanies every important concerted movement, whether playing, dancing, rowing, marching, building a house, launching a boat, planting a field, carrying a load, cutting down a tree, attacking an enemy, or worshiping a god. They welcome the birth of a child and they accompany the burial of a man with a song. Their nursery rhymes are numerous, and their favorite poets are treated with much honor.

The Greenlanders "decide their quarrels by a match of singing and dancing which they call the singing combat. If a Greenlander thinks himself aggrieved by another, he discovers no symptom of revengeful design, anger or vexation; but he composes a satirical poem which he recites with singing and dancing in the presence of his family, till they know it by rote. He then in the face of the whole country, challenges his antagonist to a satirical duel. . . . He who has the last word wins the trial. . . . It serves a higher purpose than a mere

diversion. Nothing so effectually restrains a Greenlander from vice as the dread of a public disgrace."²

Savage eloquence reached its highest development among the Iroquois, the Algonkins, the Cherokees, the Tongans, the Kaffirs, the Maoris and the Samoans, all of whom were in the habit of discussing and deciding their most important public questions in assemblies of the warriors or councils of the nobles; but of their orations, delivered before they had been long in contact with civilized men, no samples have been preserved.³

Proverbs containing wit and close observation of human life are found in many savage tribes. Among those of the Tahitians are the following:⁴—

Women and war are man's perils.
 At planting, friends are few; at harvest, many.
 The reward of bravery in battle is uncertain; that
 of toil in tillage is sure.
 The net conceals its spider and the heart its thought.
 The gift, with much love, is never small.

Notches in sticks and knots in strings are used to aid the savage memory. Knotted cords for such purposes are familiar among the Araucans, Ostyaks, Sumatrans, Javans, Polynesians and the aborigines of New Britain. The payment of taxes was recorded in Hawaii on strings,⁵ and in New Britain count was kept on them of days passed, of cocoa-nuts delivered and of other statistics. The Zuni Indians have a tradition that their ancestors had knotted-cord records. The wampum of the tribes east of the Mississippi, consisting of bead belts, was used to remind their possessors of treaties and traditions. Rude pictures are drawn by many tribes to convey information, and some of them can be easily understood.

SEC. 95. *Music*.—Every savage tribe has its music, but

none has many striking airs, nor one air that commands the admiration of enlightened nations. All their tunes are in the minor key, which does not give scope to varied and powerful effects. In many of their airs, the rhythm is a large part and though not strongly accentuated, it has a decided influence on the savage temperaments at times. The range of tones is small; in Samoa and Tahiti only three notes, from *e* to *g*.¹ Referring to the Polynesians, Foster says, "the whole music both vocal and instrumental, consists of three or four notes, which are between half and quarter notes, being neither whole nor semitones. The effect of these notes, without variety or order, is only a kind of drowsy hum."²

Writing of the music of the Bushmen, Dr. Lichtenstein says, "We were by degrees so accustomed to the monotonous sound that our sleep was never disturbed by it; nay, it rather lulled us to sleep. Heard at a distance, there was nothing unpleasant, but something plaintive and soothing. Although no more than six tones can be produced from it, which do not, besides, belong to our gamut, but form intervals quite foreign to it, yet the kind of vocal sound of these tones, the uncommon nature of the rhythm, and even the oddness, I may say wildness, of the harmony, give to this music a charm peculiar to itself."³

Harriet Martineau remarks that "the music of nature is all in the minor key—the melodies of the winds, the sea, the waterfall, the song of birds, and the echoes of the bleating flocks among the hills; and the human song [in low culture], seems to follow their lead."⁴ Dr. Crotch, speaking of the musical instruments of the aboriginal Javans, says they have the "same kind of scale as that produced by the black keys of the pianoforte, in

which scale so many of the Scotch and Irish, all the Chinese and some of the East Indian and North American airs of the greatest antiquity were produced.”^b He adds that the irregularity of the rhythm and the reiteration of the same note are characteristic of oriental music, and the same remark applies to savage music. Burton says that “the noisiness of the major cleff” confuses the barbarian; and it is a well known fact that Chinamen and savages after having been accustomed for generations to hear, at least occasionally, the music of the Euraryans, continue to prefer their own airs in the minor key. They often listen with indifference to our orchestras and sometimes with positive dislike, and even put their fingers in their ears to keep out the unpleasant sounds. On the other hand, we regard the Chinese orchestral and choral music as a most ludicrous and ear-offending combination of discordant squeak, rattle, squall and bang.

Falsetto is prominent in the singing of most savages, as it is in China, Japan, Russia, Arabia, and also among “uneducated singers in the rural districts of civilized countries.”⁶ It implies defective perception of harmony, the higher forms of which, in the combination of three tones to make a full chord, are unknown in the lower grades of culture. Most tribes perform but one part at a time, but some, including Hawaiians, Tahitians and Tongans,⁷ could sing two parts together.

The most widely known musical instrument is the drum. As a hollow cylinder of wood or bamboo, with or without a covering of rawhide, it is familiar to the Australians, Polynesians, Africans, Asiatics, Eskimos, and Americans of both continents. Its monotonous sound is a suitable accompaniment for the savage chant; and its loud notes serve in time of war to warn and to

excite warriors far and near. The Balondo drum has a hole in the side over which a piece of spiderweb is stretched as a resounder.⁸

Perhaps the name of gong would be more appropriate for a canoe-shaped hollow log made by the Maoris. When suspended and beaten hard, its noise can be heard in still weather at a distance of twenty miles. Rattles of bladder or gourd containing pebbles or nuts supply much of the racket which many tribes enjoy. The maramba, a collection of resonant sticks of various sizes, giving out different notes under the hammer, was used in many African tribes before it was copied, improved and made familiar in Europe as the xylophone.

The harp of the Kaffirs consists of a bow with a single string, passing through a ring, in which the performer inserts his forefinger of the hand used for holding the bow; and by the movement of this finger he can increase or relax the tension, and thus regulate the note to be produced by a blow on the chord from a stick in the other hand. The Bushman's harp has a single string stretched on a bow. To one end of the string is attached a flattened piece of the barrel of a large quill four inches long. He holds the bow in his left hand, puts his left forefinger in his left nostril, and his right forefinger in his right ear, and by sucking or blowing on the quill, he causes it to vibrate and make sounds musical to him.⁹

Various instruments resembling the guitar in principle are used in most of the countries producing the bamboo, the outer rind of which is cut into strips from one point to another, raised by wedges or bridges, and played with the fingers like a harp or rubbed with a cord stretched over a bow. The Gonds have a rude guitar made with a gourd in which is stuck a neck of bamboo.¹⁰

Of wind instruments, the most common is the trumpet made of conch shell, which is much used on the northern shore of the Gulf of Mexico and in Polynesia. The Tahitians increase the sound by boring a hole in the side and inserting a bamboo tube, three feet long, through which they blow. The nose flageolet is found in Polynesia as in ancient Greece, the left nostril being used for blowing while the right one is closed with the right thumb.¹¹ In Niue the player applies a flageolet to each nostril, blowing both at the same time.¹² The Pandean pipes are known to many Melanesian and other savage tribes.¹²

SEC. 96. *Medicine, etc.*—Besides sacerdotal hocus-pocus (based on the theory of demoniacal possession), which is general among savages, as a cure of disease, many tribes have therapeutical remedies.¹ In North America and Tahiti, the steam-bath is a general remedy, exit from the bath being followed immediately by a plunge into a stream or pond. This treatment gives relief in light rheumatisms and some other mild complaints, but in smallpox and measles it is almost invariably followed by a fatal result. Vegetable purges and emetics are frequently administered as remedies for disease, or as means of expelling demons that cause disease, by the Polynesians and Redmen; and in some American tribes, emetics are taken to prepare warriors for ecclesiastical festivals² or for exceptional exertion. The Lapwai tribe in Idaho has periodical treatments with emetics to overcome the spirit of fatigue. Wilkes tells us that a man who had just gone through such a treatment ran one hundred miles in sixteen hours.³

Smallpox was introduced into America and measles into Polynesia by Europeans. Various forms of catarrh were unknown or rare in many tropical islands of the

Pacific before the missionaries induced their converts to wear clothing. Ague made its appearance among the Chinooks after the white men began to settle in Oregon.⁴ Syphilis was known in New Zealand and Australia and smallpox in Australia before the time of Cook, but perhaps not before the visits of earlier European navigators.⁵ Hernia humoralis is common among the Makonde.⁶ The Javanese have a peculiar hysterical affection called lata.⁷ In consequence of the custom of eating raw meat, most of the Abyssinians, in portions of the population ninety-five out of a hundred, have taenia.⁸

Some savage tribes have considerable knowledge of surgery and others very little. The East Africans near the equator can neither reduce dislocations nor set broken bones ;⁹ the Mandingoes can do both.¹⁰ Among the North American Indians and some Polynesians, broken bones are set with splints, cuts are sewed together and the external healing of suppurating wounds is carefully prevented.¹¹ They also use bleeding, cupping, and cautery with heat. The Californians apply nettles, venomous ants, and burning heat to parts afflicted with rheumatism. The favorite remedies of the Damaras for that disease are cupping and tattooing. Their cup is a section of a cow's horn from which a man sucks out the air. The panacea of the Ashira negroes for leprosy, lumbago, and many other diseases, consists in scarifying the affected part, and rubbing the cuts with capsicum and lime juice.¹² The Andamanese use scarification for rheumatism. The Koosa negroes inoculate their children with smallpox, giving them the virus to eat in a grape,¹³ having presumably learned this remedy from the Arabs. The success of the Solomon Islanders in treating gunshot wounds with hot stones astonished Doctor

Guppy and led him to believe that the method should be tried in civilized hospitals.¹⁴

The Polynesians amputate limbs, and sear severed arteries with red-hot stone. They trepan skulls, and sometimes after taking out some of the man's brain, put some pig's brain in to fill up the hole. No case of success in this operation is on record.¹⁵ The prehistoric Europeans trepanned many infants, perhaps for convulsions,¹⁶ and the subsequent growth of the bone proves that the subject survived for many years. The trepan hole usually about an inch and a half square was made at some place convenient for cleaning the inside of the skull.¹⁷

The kneading of the muscles is practiced in Polynesia,¹⁸ the basin of the Niger and the southern part of the Nile basin.¹⁹ It is found in the most common use and in the highest development in the Hawaiian group, where it is called lomilomi. For bruises, sprains, sleeplessness, surfeits, and stiffness after severe exertion, it is the favorite remedy and is applied with much success. It is used for hygienic as well as for medical purposes. Its administration at frequent intervals to most of the high chiefs and their sons, is presumably the main cause of their large size and great strength. In Tonga, the person suffering with insomnia is beaten with mild strokes until he falls asleep, and if he awakes before he has obtained the needed rest the beating is resumed.²⁰

SEC. 97. *Vocabulary*.—Articulate speech, the necessary product of human reason, is one of the greatest achievements as well as one of the leading characteristics of mankind. Whether "language and thought are inseparable,"²¹ or whether "general ideas and words are inseparable,"²² as Max Muller says, or not, it is certain that, with-

out the aid of speech, man would ever have remained near the level of the brute. Soon after he appeared on the earth he found gratification in listening to the sound of his own voice, and in trying its tones. Before taming fire or making edge tools, we may presume that he imitated the cries of quadrupeds and birds, and uttered exclamations of pleasure, pain, surprise, alarm, warning, threat, defiance, friendship and affection. These ejaculatory, and imitative calls³ by adoption into common use, with understood meanings, became words. They were monosyllables without parts of speech and without inflection. The position in the sentence indicated whether the word was a subject, predicate or object; whether a noun, adjective or a verb.⁴ In many cases the meaning was not clear until the words had been supplemented by a gesture. There were no terms for general ideas or immaterial conceptions. The words were few. Some agricultural laborers of modern Europe do not use more than three hundred,⁵ and the Chinese have not more than five hundred original root words.⁶ The savage vocabularies though brief may be very full in some classes of terms. Thus Polynesians have many words to signify the cocoa-nut in different stages, as the Arabs have many for lion,⁷ and the Icelanders many for various kinds of island.

Many modern tribes have no general terms for the most common classes of objects. Thus the idea of plant, tree, animal and quadruped, cannot be expressed in the tongue of the Coroados of Brazil. They have names for various species of tree but none for tree in general. Neither can they convey the conception of distance, height, color, tone, sex, multitude, degree, space, time, feeling, consciousness, affection, gratitude or love by any

one word. Among the tribes, which have no abstract terms, are the Tahitians,⁹ Redmen,¹⁰ Australians¹¹ and Tasmanians.¹² The Hos have no words expressive of tenderness; the Tinnehs have no adjective meaning dear; some Polynesians and some Redmen have no verb signifying to thank; and the Algonkins have none meaning to love.¹³ Many tribes are without such simple adjectives as warm, long and hard, and they express the idea by saying not cold, not short, or not soft, or they compare the object of which they are speaking with something which is warm, long, or hard.¹⁴ In adjectives they lack comparatives, and they convey the idea that John is taller than James by saying "John is tall and James is not tall." In some tribes there are no special words for I and you. The ideas of I and you are conveyed among the Greenlanders by "here" and "there;" among the Malays by "servant" and "master;" and in some tribes, by loud and low tones, the loud meaning I, as nearest, and the low you, as farther away.¹⁵ The Mandingoes have no prepositions equivalent to our "on" and "in;" and they convey the idea that a thing is on the table, by saying the table is a neck to it; and that a thing is in the hut, by saying the hut is a belly to it.¹⁶ Similar rudimentary forms of speech are found in China, where the idea of distance is conveyed by "far-near;" of weight by "light-heavy;" of conversation by "I-asking-thou-answering;" and difference of opinion by "I-east-you-west;" and virtue, loyalty, justice, temperance and respect for parents by similar combinations.¹⁷

In the languages of savages the words for immaterial conceptions are comparatively few, but as among civilized people, all "are derived by metaphor from words expressive of sensible ideas,"¹⁸ or they are the words for sensi-

ble ideas used also with another meaning. Thus the word for soul in one tribe is shadow; in another, breath, and the same term may mean shadow, the soul of the living man, the dead spirit, and a god. The verb to sit, among the Kaffirs means also to dwell, to live and to continue; bush means also a refuge; to eat together means to be friends; and the idea, that he is proud, is conveyed by saying he eats himself. The phrase "eat a person," in the sense of confiscate his property, is a survival of cannibalism; and to smell a person, in the sense of accusing him of witchcraft, suggests the savage custom of discovering murderous sorcerers by the noses of priests.¹⁹

The Puris, Botocudos, Bushmen, Tasmanians and some Australians have no numerals above two; the Abipones and some Californians have none above three; the Guaranis none above four;²⁰ the Veddahs none above five; the Greenlanders and Kamilaroi none above six; and the latter tribe have no simple numeral above three. For four they said "two-two;" for five, "two-three;" for six "three-three."

This poverty in numerals does not necessarily imply the inability to conceive higher numbers distinctly; since by holding up both hands together five times in succession, any number under fifty can be indicated with sufficient clearness, to satisfy the savage sense. Thus, though the Bechuanas have numerals, they rarely speak them, and some indeed do not know them. It is sufficient for their purposes to hold up their fingers for small numbers, and to say many for larger ones. Those tribes which have only two numerals, give the name of multitude to any number above two.

The Coroados name their three numerals after the

joints of the fingers ; ²¹ in the tongue of one tribe, the word for one means the forefinger ; that for two the middle finger ; three the third finger ; four the little finger ; five the hand ; ten two hands ; fifteen two hands and a foot ; twenty a man. In the Persian, Malay and Polynesian languages, the same word means hand and five ; in the Muysca tongue five means a hand, ten, two hands ; eleven, foot one ; twelve, foot two, and twenty means man.²² There are many reasons for believing that men counted by scores or twenties before they learned to count by hundreds. The early English counted by scores as we find in the phrase threescore and ten ; and the French also, as evinced by their “ quatre-vingts ” or fourscore for eighty. The Arowaks count by scores ;²³ and the Hawaiians had presumably the same system of enumeration, if we may infer from the fact that they had special words for 400, 4,000, 40,000 and 400,000.²⁴

In the Malay and Aztec tongues, one means literally one stone ; two means two stones ; and three, three stones. The Niués for one, two and three say one fruit, two fruits and three fruits, the Javans say one grain, two grains, three grains.²⁵ The Latin word calculation seems to have been derived from calculus, a stone, and we may presume that the early Romans used stones in counting.

SEC. 98. *Sounds and Signs*.—In some languages, general terms are limited to special meanings by special or determinative sounds, such as the click, clack and cluck of the Hottentot. These sounds are made by drawing the tongue from the upper part of the mouth ; the click from the upper front teeth, the clack from the front of the palate, and the cluck from the middle or back of the palate. From a preceding click the word “ Aap ” receives the meaning of horse ; from a clack, river, and

from a cluck, arrow. In some South African tribes, the clucks are attached to a large proportion of the words, and conversation sounds like the drawing of corks or the gobbling of turkeys. The Wasakima of East Africa begin every word with a t'hu or t'ha, as if spitting sharply at some offensive object. The speech of the Fuegians is a coarse guttural clucking.¹ Some of the Indians of the northwestern coast of North America have numerous guttural sounds very difficult for the civilized tongue to master.

Another indication of the several separate meanings of the same word is the intonation used by the Chinese, Siamese, Yorubans,² Dahomans and Ashantees.³ The use of varying places in the gamut in the enunciation of words as qualifications of signification is especially adapted to monosyllabic tongues like those of the Chinese and Siamese.⁴

In the Annamitic tongue, "ba" pronounced with a grave accent means a lady; with a sharp accent, the favorite of a prince; with a semi-grave accent, something thrown away; with a grave circumflex, a fruit after the juice has been squeezed out; with no accent, three; and with an ascending accent, a box on the ear. Thus the sentence "Ba ba ba ba" each word pronounced with a different accent may mean, "Three ladies gave a box on the ear to the favorite of a prince." A singing tone is common in the speech of Tonga, Huahine and several other Polynesian Islands,⁵ but is not used there to distinguish the meaning of words.

A notable feature of many savage tongues is the large proportion of words containing duplicated syllables, as in the English words papa, Tartar and Berber. Of such words there are three in a thousand in English; seventy-

two on an average in four aboriginal American tongues ; seventy-three in each of six African ; ninety-six in five Melanesian ; and one hundred and sixty-nine in two Polynesian languages.⁶

Though savage tongues in some cases are remarkably guttural, as a general rule, they have brief alphabets. The Samoans have only fourteen letters ; the only consonants on the Tupuai group south of Tahiti, are those of m, n, ng, p, r, t, v and one guttural.⁷ No Polynesian tongue has more than ten consonants ; many have fewer. There are twenty in English. The Australian tongues have eight. The Maoris have no b, d, f, g, j, l, q, s, v, x, y, or z.⁸ S, sh, and z are lacking in the Polynesian tongues generally, and in pronouncing European words, they substituted k for s and sh. Missionary in their mouths became mikonary. The Hawaiians, like many other savages, and like some civilized children, cannot distinguish between k and t ; or between l and r. Kalo and taro are for them equivalents. The Iroquois had none of the labials—b, p, m, f, v, w,—and could speak distinctly with very little movement of the lips.⁹ Some of the tribes on the western coast of North America could pronounce p but not f, nor r ; and piway was their nearest approach to fire. The Fijians could not use b, d, or g, without putting m or n before it, as in Ngata, and Nduandua,¹⁰ and a similar use of m and n before k, t, d, p, b, g, and ch and some other consonants is found in portions of Africa. In Polynesia every syllable must end in a vowel, and two consonants must never come together, and the same rules apply with few exceptions in some portions of Africa.¹¹ To the New Zealander, Bill becomes Biro ; William, Wiremu ; and Tom, Tommo ; and in Tahiti, Governor is Tavana.

Many tribes have vocabularies so scanty that they cannot converse without the help of gesticulations, and therefore cannot understand one another in the dark. Such are the Bushmen,¹² Tasmanians,¹³ Veddahs,¹⁴ Puris, Southern Brazilians,¹⁵ Coroados, Arrapahoes, Comanches,¹⁶ Cape Palma negroes,¹⁷ Marawas,¹⁸ Kroomen,¹⁹ Adayahs,²⁰ Marquesans, and Chinooks. The obscurity of unaided speech arises mainly from the fact that one word has a multitude of analogous meanings, and in conversation the speaker must specialize his signification by some visible sign. Thus in Typee "one word expresses the ideas of sleep, rest, reclining, sitting, leaning, and all other things anyways analogous thereto, the particular meaning being shown chiefly by a variety of gestures and the eloquent expression of the countenance."²¹ The face is much used in the sign language of many tribes. Grimaces are prominent in the conversation of the Veddahs;²² and the Tasmanians "help out their words with winks, nods, twists, and eyebrow liftings, as well as with rapid arm and finger movements."²³ The people, accustomed to such pantomime, use it often in preference, even when their words would suffice to convey their ideas distinctly.

They spare effort with speech more than with gestures. The savage of Southern Brazil, intending to convey the idea that he is about to go into the forest, speaks the words "wood go," and sticks out his lips in the direction which he intends to take.²⁴ The West African chief says "do it," and by gestures indicates the act to be done and the person to do it.²⁵ In some tribes the speaker, who conveys the idea of number, does so by gesticulation, and the hearers speak the numerals so as to show that they have the correct figure.²⁶ The actions of a party of South Africans listening to a hunter telling

about a trip on which he saw many different kinds of large game, suggest a play to the European observer.

The extensive use of gesticulation through many generations has led to the adoption of a sign language, the main features of which are the same among the savages of America, Africa, and Malaysia, and the deaf mutes of civilized countries. This mode of communicating ideas, based on imitations, analogies, associations, and resemblances, when once learned, is quickly understood and easily remembered. Its daily use checks the improvement of speech among the low savages, while the habits of reading and writing, and the consequent familiarity with ideas and delicate shades of meaning not susceptible of communication by signs, have contributed to the neglect of gesticulation in enlightened nations. The higher the education, the fewer the signs and the more explicit the words.²⁷

SEC. 99. *Grammar*.—Of all tongues known to philologists, the most rudimentary, in the form of its words and the construction of its sentences, is the Chinese. It has neither inflexion, parts of speech, nor syntax. The same word is noun, adjective, and verb, according to the place in which it is used. The ideas live, alive, and to live are expressed by the same term. “Jin” means man, and “ngo” bad; “jin ngo” means the man is bad; “ngo jin” means bad man.¹ The languages of the aboriginal Americans, Africans, and Pacific Islanders, have been carefully studied in typical cases, and neither among them, nor among other peoples has any tongue so primitive in its features been found. In speech the Chinese are nearer than any other nation or tribe to the childhood of humanity.

Many low tribes have complex systems of inflexion.

Some have as many tenses as had the Latins. Ridley, who had been a missionary among the Australians, wrote thus of their tongue: "The inflexion of verbs and nouns, the arrangement of sentences, and the methods of imparting emphasis, indicate an accuracy of thought and a force of expression surpassing all that is commonly supposed to be obtainable by a savage race."² The Fijians, according to Miss Constance Gordon Cumming, have "more words to express shades of meaning than any European language." No distinguished philologist has given such praise to any savage tongue and it certainly could not be given truthfully to savage tongues generally.

SEC. 100. *Rapid Change*.—Among non-tilling savages living in small and isolated groups, every group or village or valley has a distinct dialect. In portions of New Guinea, Western Africa,¹ California, and Canada,² the traveler comes on a new tongue about once in ten miles. Not only are the languages very numerous, but they change much within a single generation. Missionaries in Central America found that after a lapse of ten years, a vocabulary had to be rewritten.³ In the period of less than twenty years between the visits of Cook and Vancouver to Tahiti, the names of the numerals, two, four, five, six, and eight, had changed there,⁴ and new words had been adopted for about fifty of the most common ideas.⁵

The savage fears to speak the name of his dead friend or of his chief, and since men are named after familiar natural objects, a tongue may be much modified by such influences in one generation. If a man called Owl dies, the word owl is dropped and mouse-catcher or some equivalent is adopted in its place. This custom is found

in Asia, Africa, America, Australia, and Polynesia.⁶ The Tahitians and Zulus not only abandon a word used as a sacred name, but a syllable in such a name.⁷ "Po," meaning night, dropped out of the Tahitian language when Pomare became chief, and on the accession of Taimalelangi, whose name meant "sea-and-sky," two of the most familiar nouns were abandoned.

The suggestions of accident are potent causes of change. An act notable for wisdom or folly, bravery or cowardice, skill or awkwardness, is named after the person who did it. New words, introduced by children while playing, may prevail over small districts and for brief periods in advanced culture, but soon die out; in savagism, they hold their ground. Extensive political organization, popular assemblies, a sacred literature and, above all, a system of recording sounds, in extensive use, are great aids to permanence of language.

SEC. IOI. *Intellectual Development.*—Morality begins in the affection of the mother for her child; and the first known manifestation of its influence on the political organization is the fidelity of the members of a little group to one another. It must be very low among the non-tilling tribes which are divided into small independent clusters, which pay high honor to the successful assassin and which have religions without the least ethical teaching. Among the tribes in the early stages of tillage, we find that the man cannot take his place among the warriors until he has killed somebody; that scalps and skulls are fashionable trophies; that gourmand cannibalism is widely prevalent; that the gods are liars, murderers, and cannibals; and that the rewards of the future life are not for virtue but for military prowess. In the tribes with slaves, nobles, hereditary priests, and despotic

chiefs, the moral ideas have advanced, not by their own strength, but they have been dragged along by the growth of other branches of culture. The enlargement of the political organization, the higher sense of allegiance, the improvement in military discipline, the accumulation of property, the change in the relations of women to men, and the demand for chaste conduct in wives and young women,—all these stimulated, broadened, and strengthened the popular morality.

In language we find many traces of evolution. One tongue consists of monosyllables which have no inflexion and may be noun, verb or adjective as occasion may require. The list of syllables is limited to several hundred, but different intonations are used to give different significations. In some languages, one word has many meanings, and gestures are added to distinguish which is intended in any special case. Certain tribes are so poor in their vocabulary and their ideas that they have no word for any numeral above three. In the tongues of all peoples, civilized and barbarous as well as savage, the terms for abstract and general ideas are derived directly or indirectly from the names of things perceptible to sense.

CHAPTER VI.

POLITY.

SECTION 102. *Headless Groups*.—The lowest form of government, known to civilized observation, is the headless group,—that is a small community, politically independent, without a chief entitled to office by inheritance or formal election.¹ The person who leads merely because of his superior energy, courage, or tact, does not deserve to be called a chief. Such headless groups are most abundant in tribes organized on the basis of the feminine clan in non-tilling culture; and they occupy a large part of Australia. They have no orderly councils; and no punishment of crime save by retaliation.

Migratory habits are unfavorable to government and chieftainship. The Abos of Hindostan say they are “like tigers; two cannot dwell in the same den.” Usually not more than two or three of their huts are found in a group.² The Mintras of Sumatra have a similar lack of political organization. The Fuegians, the Jungle Veddahs, the Cayaguas of South America,³ some Bushmen and some Nepaulese who are nomadic in their mode of life, some semi-settled Eskimos, and the settled Arafuras and land Dyaks of upper Sarawak, live in similar headless groups.

SEC. 103. *Freedom*.—The supposition that savages live in freedom is based on incorrect definition. It has been

asserted that freedom, that is political freedom, is "the power to act in obedience to desire;" that "government in its fundamental notion is the necessary foe of liberty;" that "man never can be free until he can abolish the restrictive and protective attributes of government," and that "the liberty to do wrong is as sacred as the liberty to do right."¹

But writers, who use such language and accept such ideas, do not understand the conception of liberty accepted by the leading political philosophers of our time. The true freedom, the freedom which the world admires, towards which it is marching, which inspires the devotion of enlightened statesmen, is not anarchical; it is not the privilege of doing wrong; it is not the privilege of violating the rights of others; it is not the legalization of murder, torture, slavery, robbery and all other forms of injustice which selfish greed or passion may suggest. It is the very contrary of all these. It is a condition in which the law promises political equality to all citizens, and secures it to them by an upright and efficient administration of the executive and judicial departments of the government against all encroachment. It is a condition in which every citizen is permitted to do all things that do not conflict with the equal privilege and enjoyment of others, and in which every interference with these equal privileges and enjoyments is prevented. Like all other human institutions, political freedom exists only in a defective form. Though it will never become perfect, it will never cease to improve. Its higher developments are possible only under complex written law, and therefore are never found among savages. Political progress begins with the anarchy of the non-tilling savage and advances steadily towards ideal and perfect liberty.

The superficial observer, passing hastily through a community of the lowest savages, such as Bushmen, Tasmanians, Australians or Lower Californians, and seeing that they have no clothing, no horses, no tilled fields, no domestic animal save perhaps the dog, no stock of food sufficient to last a month or even a week in advance, no chiefs empowered to issue commands or to collect tribute, might imagine that such people if not free were at least equal. But a careful examination will show that except in their poverty, great inequality prevails among them. As between the two sexes, the men have all the power. The women are slaves rather than wives, and are treated with general and severe cruelty. They are not permitted to eat the best food, nor to associate with their masters on terms of social equality ; and may be beaten or slain without giving any person the right to interfere or complain. As between the men, the relation is not much better. The stronger and more warlike clans are continually encroaching upon the weaker, and massacre is their delight. Within the clans, the women—the chief kind of property—are divided very unequally. Lang, after a long acquaintance with the aboriginal Australians, wrote that “instead of enjoying perfect personal freedom, as it would at first appear, they are governed by a code of rules and a set of customs which form one of the most cruel tyrannies that has ever perhaps existed on the face of the earth, subjecting not only the will, but the life and property, of the weak to the dominion of the strong. The whole tendency of the system is to give everything to the strong and old, to the prejudice of the weak and young, and more particularly to the detriment of the women. They have rules by which the best food, the best pieces, the best animals, etc., are prohibited to

the women and young men, and reserved for the old men. The women are generally appropriated to the old and powerful, some of whom possess from four to seven; while wives are altogether denied to young men, unless they have sisters to give in exchange and are strong and courageous enough to prevent their sisters from being taken without exchange.”²

SEC. 104. *Unstable Headship*.—The headless stage of polity is succeeded by that of unstable headship in which there are chiefs with insecure titles or powers so scanty that they cannot issue orders, and can at most offer suggestions or make requests. Many tribes have no chief save in time of war, and then his authority is to lead, not to command, and is limited exclusively to military affairs. He is expected to invite warriors to follow him in his military expeditions, but he has no right to complain if they stay at home or follow some other person. The unstable chieftianship has no revenue.

The tribes with unstable headship include the Andamanese, Abipones, Snakes and some Bedouins, who are nomadic in their mode of life; also the village Veddahs, the Bodos, the Dhimals, the Chinooks, some Eskimos, some Kamtschatkans and some Caribs, who are semi-settled; and the Todas, Nagas, Karens, Santals, Vatéans, Fannese, Coroados, some Dyaks, and some New Guinea tribes, who dwell in permanent settlements. Most of these tribes recognize no chiefs except in time of war, and then confer little authority on them.

A common feature of weak political organization is that every village is independent, and among its residents there is no sense of loyalty or duty of peace towards the inhabitants of adjacent villages of the same blood, language and customs. This is the general condition of

tribes without chiefs, and is common among those in which the power of the chief is weak or unstable. With village independence, goes the man's privilege to move from one village to another. In this way an unpopular chief may find himself left without supporters. Such village independence prevails among many Bedouins, whose migratory life, the necessary result of their pastoral condition in a desert country, is not favorable to the establishment of permanent authority.

Some few tribes elect their chiefs for terms less than life. In Rotuma the term is six months; in Ambriz, five years. The Bedouins have a hereditary military leader, and an elective political chief; and some tribes have a hereditary political and elective military chief. In unstable headship, and weak stable headship, the chiefs are required, by many tribes, to give periodical feasts to their subjects and on such occasions to distribute presents.¹

SEC. 105. *Stable Headship*.—Stable chieftainship made its first appearance among tribes organized on the basis of the feminine clan in tilling culture. Each clan elected a political chief and a military chief, who held office until he was deposed by the clan assembly, and as this power of deposition was very rarely exercised, the tenure was practically for life. The power attached to the office was not great. The political chief could not administer justice; the military chief could not enforce his commands. The office had more dignity than authority.

The frequency of warfare, the importance of having brave chiefs experienced in arms, the timidity of women generally and their abstinence from the use of weapons, have excluded them from chieftainship in most savage tribes, even in those which traced their blood exclusively

in the female line. Exceptions to this rule are the Narragansetts of Rhode Island, the Guaranis of South America and some African tribes, which permit women to exercise the office of chief.

SEC. 106. *Industrial Chiefs*.—There are industrial chiefs, with authority over matters of trade and labor, in Fiji, Dahomey, and some Dyak countries. In Celebes and Eastern Africa, the days for commencing to sow and to harvest are fixed by chiefs; among the Kadogans and Hawaiians, the prices of food are regulated by them; among the Tongans, traffic at fairs is under their supervision; among the Khonds, Mundrucus and many Polynesians, the chief is the broker of the community; and among many tribes of Hindostan, the chief apportions the land of the village among the heads of families and superintends removals from one site to another.

SEC. 107. *Assemblies, etc.*—Assemblies to deliberate about public affairs had their origin in non-tilling culture, beginning with military and afterwards extending to political affairs. Their highest development in savagism was among the Redmen east of the Mississippi, where every village had its public square, in which the warriors gathered every morning and, if public business demanded their consideration, held a formal assembly. In many of the villages there is a large hut suitable for assemblies to be held in wet or cold weather. On such occasions, the right of speech belongs exclusively to the chiefs, distinguished warriors, and such other persons as might be called upon by a chief. There is no precise rule of order as in a civilized legislative body; no secretary; no counting of votes. The decisions are rendered by acclamation.¹ In many tribes the boys and women may sit outside of the circle of warriors and join in the

acclamations. These assemblies of the warriors elect the chiefs and have general jurisdiction of all the more important political affairs, especially of peace and war, among the North American Indians, and are frequent and influential in many African tribes. Those tribes which have strong hereditary nobilities, usually do not permit the common freemen to hold assemblies, but restrict the public discussions of political affairs to councils of nobles.

SEC. 108. *Confederacies*.—Representative governments were not unknown to savagism. They existed among the North American Indians and also among the Batta Malays and the Berbers. The Iroquois confederation comprised five tribes, each tribe divided into several clans, each clan with its popular assembly and its elective chiefs who formed a tribal council. Each tribe had its federal representatives. The confederate council, consisting of fifty members, had general charge of peace and war; it elected two federal military chiefs who led the troops in war; it installed the clan chiefs elected by the clan assemblies; it presumably had power to annul elections of unsuitable persons, and had certain ceremonial or religious functions, as at funerals of distinguished warriors. In the meetings each tribe had only one speaker and one vote, and there was no decision without unanimity. The proceedings were secret until communicated by order to the tribal councils, which could then transmit them to the clan assemblies.

The Wolf clan of the Onandaga tribe was entitled to a federal councillor who was keeper of the wampum, with functions suggestive of those of a modern secretary. Whenever a clan chief was installed, the keeper of the wampum was one of the chief speakers. He produced

his belt of beads, and made it the text of an address explaining the meaning of the different strands, indicative of the manner in which the confederacy was organized, the powers conferred on the federal council, and the duties of the clans and tribes to one another.¹

There were, every year, about half a dozen federal religious festivals, and at each of these the federal council held a meeting, and took charge of the ceremonies. Whenever a new clan chief was to be installed, it held a session of seven days. The first day was devoted to mourning for the dead chief: the second to the installation of his successor; and the others to brief meetings in which there were formal addresses. Every day during these councils, the councillors dined together at twilight.

This Iroquois confederation was maintained for three centuries in harmonious and effective action.²

We have no clear account of any other federal government among the aboriginal Americans, but there are traces of it among the Muscogulgees (including the Creeks, Choctaws, Chickasaws, Cherokees and Seminoles), the Upper Missouri tribes (including the Mandans, Minitares and Crows), the Lower Missouri tribes (including the Omahas, Iowas, Punkas, Otoes, Kaws and Winnebagoes), the Dakotas, the Munsees, and the Mohegans. In all these cases, the warrior considered his allegiance to his clan as the strongest, to the tribe weaker, and to the confederacy weakest.

Every Friday, the Berbers of Morocco meet in the market places of their villages to consider public affairs, if any should demand their attention. Twice a year this popular assembly elects a mayor, councilmen and several other officials; and the mayors, as representatives

of the villages, form a tribal council.³ The Batta Malays also have tribal councils, consisting of representatives each of whom is chosen by his commune, which last may include as many as ten villages.⁴

When the student considers that representation is one of the main features in which the governments of the modern Europeans surpass those of ancient Greece and Rome, to whose greatest statesmen and political philosophers its principles were unknown; and when with our representative governments he compares the greatly inferior contemporaneous despotisms; when he keeps these ideas before his mind, it seems strange to him to be told that the Iroquois confederation with its systematic representation, its orderly councils, and its prosperity dating from a time before Columbus, belongs to a lower step of political development than the brutal and violent despotism of Dahomey. But it is nevertheless true. The Iroquois were the best representatives of tribes with weak chiefs; the Dahomans are among the worst of those with strong, stable chiefs.

SEC. 109. *Retaliation*.—Having no sense of moral obligation to anyone beyond the limits of their own small domestic group, and no idea that violence to an outsider is wrong, non-tilling savages do not feel the need of a governmental administration. They find it necessary however that group should defend itself against group, and for this purpose they adopted retaliation, which prevailed everywhere in the low tribes, and extensively in higher conditions, even far into barbarism.

This system requires that any damage to person or property, even if done unintentionally or in self-defense, must be avenged by inflicting a similar injury. No distinction is made as to the obligation of retaliation,

between treacherous assassination and justifiable homicide. Such a confusion, in regard to the moral character of actions, is the natural result of the lack of judicial investigation. Without evidence of the motives, and with the knowledge of a general hostility towards everybody outside of the group, custom established the principle that every injury was to be regarded as malicious and without excuse. The thirst of the relatives for vengeance however would not be so fierce, if they knew that the man to be avenged had provoked his fate by malignant violence or gross folly.

If the victim of the wrong survived and was able to punish the offender, the chief duty of retaliation rested on him; and he was required to get as near an equivalent as possible; an eye for an eye; a finger for a finger; an ear for an ear. If his horse had been stolen he must recover the animal or steal another of equal value. In case of homicide, the obligation rested on certain relatives, and if there were none, then on the group, clan or tribe. The duty is not limited to persons of adult age at the time the offense was committed, nor even to persons then living, but descends to those of subsequent birth, to posthumous son and grandson, nephew and grandnephew. In many Arab tribes it rests with special force on all the male descendants of the same great-great-grandfather; and under some circumstances may remain in force for more than a century. The son whose father's death is unavenged, must wear his father's slippers once a year.

The universal authority of the retaliatory system among non-tilling savages, its general prevalence in the higher tribes, and its acceptance by many barbarous nations, are significant illustrations of the rudeness and

violence of human nature in the earlier stages of culture, and strong evidences of the fact that those who do not combine their forces for energetic defense, would soon be plundered and destroyed without pity. Because of the general consciousness that it was indispensable as a method of defense, its enforcement was the most sacred of all obligations and neglect to enforce it was the most disgraceful of all offenses.

Writing of the Australian aborigines, Sir George Grey said, "The holiest duty a native is called on to perform is that of avenging the death of his nearest relation, for it is his peculiar duty to do so; until he has fulfilled this task, he is constantly taunted by the old women; his wives, if he is married, would soon quit him; if he is unmarried, not a single young woman would speak to him; his mother would constantly cry and lament that she should ever have given birth to so degenerate a son; his father would treat him with contempt, and reproaches would constantly be sounded in his ear."¹

As part of the duty of retaliation rests on the members of the family, village or clan, according to the system on which the tribe is organized, so satisfaction may be attained by punishing any of the family, village, or clan of the offender. The man who provokes retaliation thus exposes his friends to danger, and in communities which are beginning to accumulate property, and to prefer peaceful industry, he becomes unpopular, and subjects himself to the danger of expulsion. Arab robbers usually avoid homicide for fear that it will induce their friends to turn against them.

In the blood feuds between families or clans, one of the main ideas of savage justice is that as many should be slain on one side as on the other, and in some cases

it is only on the basis of such a calculation, that peace can be made. The party, which has lost the greatest number, demands that the other shall surrender enough victims to equalize the account or shall pay the customary equivalent in money or other property.²

SEC. 110. *Retaliation Restricted*.—The law of retaliation decreased in importance with every political change, after the establishment of the small headless group. It diminished when the feminine clan arose, and when the masculine clan appeared, and when the clan grew to include many people; and when clans disappeared in consolidated tribes; and when tribal governments became stable and strong. The independence of the group, clan, or family, on which the idea of retaliation is based, is inconsistent with the peace of the tribe and with the dignity and power of the hereditary chief. Although it could not be suddenly overthrown, it was subjected to a succession of limitations by substituting fines for personal violence, by restrictions of time within which the punishment must be inflicted, by instituting asylums where offenders should be secure, and by requiring that vengeance should not be taken without the previous consent of the chief or priest.

Many tribes have schedules of penalties accepted by custom, with allowances for differences in rank. The fine for killing a freeman is more than for a slave; more for a noble than for a freeman; more for a man than for a woman. Among the Gallas, a thousand oxen will pacify the relatives of a murdered man; fifty are enough for those of a woman. Peaceable settlements are most frequent when the offended clan is the weaker of the two, when there was great provocation for the offense, when the two clans are exposed to a great danger from the

same enemy, or when both are intimately related to some third organization which uses its influence to restore friendly feeling. Among the Malays, money compensation must always be accepted when a superior has slain an inferior, but never when the victim was the superior in political rank. They have asylums, and he who reaches one, is exempt from the blood penalty but must pay the established indemnity. There is also a limitation of time, after the lapse of which the offender may present himself with the pecuniary fine and be released from further responsibility. The avengers among the Batta Malays eat the murderer, subject to retaliation. The Mosaic law forbids the acceptance of money satisfaction ;¹ the Koran permits it.²

Asylums for refugees from retaliation were favored by despotic chiefs, whose interests were adverse to the system, and who yet had no better way of administering justice. In Kaffirland the grave of the chief becomes a sacred place, where the murderer is safe from punishment ;³ in Hawaii, Tonga, and Samoa, enclosures are consecrated for the purpose.⁴ The Arabs have no asylum, but they have rules under which the thief or murderer may secure the protection of a member of the group which has captured him, and thus prevent punishment. The tribes with weak chieftainship have generally no asylum, but to this rule, the Creeks are an exception.⁵

No savage tribe has had officials who devoted themselves exclusively to the administration of justice ; and very few have had chiefs who absolutely forbade retaliation in all cases. Perhaps the Iroquois Confederation made as much progress in that direction as any other savage community,⁶ but whether they did this be-

fore they had been much influenced by the instruction and example of the white men is doubtful. Some Kaffir chiefs levy fines for their own profit on murderers, who, after payment, are secure against further punishment,⁷ and among the Hottentots, crime is sometimes punished under resolutions adopted by the popular assembly.⁸

SEC. III. *Despotic Chiefs*.—Though stable in the higher forms of the feminine clan, chieftainship did not become strong until the rule of the masculine descent had been established. Then the chief could transmit, by inheritance, his office, his wealth, and his worship to his son. Then he could train the young men of his clan with the certainty that they would not abandon him soon after becoming adults. Then he was supported by a body of warriors, who had uniformity of military discipline, community of tradition, interest, and faith. The superior military strength of the masculine clan contributed much to the power of the chief.

The highest form of savage government is despotic chieftainship, resting on the combination of tillage, slavery and nobility, as observed in Tahiti, Hawaii, and several other Polynesian tribes. Similar conditions are observed in portions of Africa. Wherever the chief has attained much power, there the clan has become weak or has entirely disappeared. The strong chief and strong state are hostile to the clan. The despotic chief exercises supreme political and military power, and if not, himself, the high priest of the tribal religion, he has the support of the sacerdotal profession. In many tribes he has the title and attributes of the divinity, and after his death he is worshiped as one of the gods. Among the Micronesians, Fijians, Dahomans, Ashantees, Congoese and some Polynesians, he has ministers to execute his decrees.

SEC. 112. *Succession*.—The early rule that rank and office, as well as property, should descend in the female line exclusively, gave way with advancing culture to male inheritance. To the chief exercising little authority, gaining little honor and wealth from his office and sharing his wives with others of his village, it seemed quite reasonable and satisfactory that the eldest son of his eldest sister should be his heir; but a different feeling prevailed in the mind of the despotic chief, with a devoted army, a considerable revenue, a subservient priesthood, and wives who could not be untrue to him without great peril. He would demand that the succession should go to his son, who often inherited his features and form, and sometimes his character and capacity; who had been trained in his tactics and his policy; and who, by association in the administration, was prepared to fill the place of ruler when left vacant by the death of his father.

The weaker and less stable the power of the chief, the less the rivalry for the succession. In tribes that elect, the change occurs more quietly than under the hereditary system, mainly because the power is usually less, and the unsuccessful have little to fear from the successful competitor. Despotism among savages is cruel, and a change of rulers is often accompanied by liberal bloodshed. Polygyny provides a number of sons, of whom the eldest may have the most experience in political and military affairs, and the most favor with the warriors generally, while the son of a younger and favorite wife, may have the aid of the father and his ministers. In such case, everyone foresees that the death of the chief will be the signal for a relentless struggle which will end with the death of the unsuccessful aspirants, and their most active supporters,

unless they can succeed in escaping to some foreign territory. The victor not only destroys his rivals, but also orders the execution of younger brothers, even infants, who might in time become formidable. Such a method of procedure has not been restricted to savage life, but has been practiced extensively in such barbarous communities as Turkey, Persia, Morocco, and other Mohammedan states.

The danger of the assassination of the chief, by his eldest son, led some Kaffir tribes to adopt the rule that the succession must belong to a son born to the chief by a wife whom he had taken after he had passed middle life. In Uganda, the high chief is selected by a council of three officials, and if they select a minor who has brothers, these are imprisoned till the end of the regency, and then the ruler orders the execution of those of his brothers whom he suspects of possessing the desire and influence to become dangerous rivals.²

In Tahiti, where the king or head chief had a semi-divine character, which increased in sacredness with the number of his royal ancestors, so soon as a son was born to a ruler, the legal title passed to the son, and from that time forward the father exercised power only as regent.³ The custom had its origin presumably in the anxiety to secure succession in the male line, at a time when, on account of ancient custom, many persons were ready to support the inheritance in the female line. An analogous custom is found in Ashantee, where the king does homage to his newly-born heir, who there is the eldest son of his sister.⁴

SEC. 113. *Ordeals*.—Among many of the higher tribes, ordeals managed by priests are used for the discovery or trial of crime. The Malagasy litigants produce each a

chicken to which the priest gives portions of a poisoned cake, and the one which lives the longest secures success to its owner.¹ In Angola, Wanika, the Shir valley and the Niger valley, the man accused of crime must take a poison prepared by the priest and if it proves fatal he is guilty. In Angola, innocence is proved by immediately vomiting; any other result means death, but in Wanika if he vomit up the poisoned dose, with much loss of blood, he is guilty.² The Wanika have various other ordeals. The innocent man is expected to pass his hand slowly four times over red-hot iron, or to lift up a red-hot stone, without being burned; or to allow a red-hot needle to be drawn through his lips without loss of blood.³ The Hawaiians have an ordeal in which a person, accused of theft, holds his hands over a dish of water before a priest, and the ruffling of the surface of the fluid is proof of guilt.⁴

In some parts of Africa, when a theft has been committed and the offender is unknown, the people of the village assemble under order of the chief, and a priest going about among the multitude, points out the criminal, who is slain on the spot or is required to submit to an ordeal and, if the result be unfavorable, he is slain immediately.

Among the Sea Dyaks, the litigant, who can hold his head longest under water, wins his case.⁵ The Singe Dyaks decide their civil suits by a head-hunting competition. The man who slays some person not belonging to his native village, and brings the fresh head to the chief first, has judgment rendered in his favor.⁶ An augury used by other Dyak tribes, prescribes that the litigants shall each produce a lump of salt. The pieces are reduced to equal weight, and then thrown into a pot

of water. He whose lump dissolves first loses his case. Another method requires each litigant to produce a snail. The two snails placed side by side on a plate are touched with lime juice, and the snail that moves first brings loss to its owner.⁷ In all these cases of ordeal or augury as means of the administration of justice, it is presumable that the priest manages the result in a manner conducive to his personal interest. The ordeals are most common in those tribes which have despotic chiefs ready to confiscate the property or enslave the family of the guilty.

SEC. 114. *Property*.—One of the chief characteristics of savagism is that it has no noteworthy increase of wealth. In many tribes the only kinds of property preserved from year to year are huts, arms, tools, furniture, clothes, and ornaments, and these are destroyed with their owner, or are merely replaced when broken or worn out. Their stock is not greater in one generation than in another. There is no tilled land, no herd, no accumulated supply of food. Thus it is that, after the lapse of centuries, neither the tribe nor any family in it has made any considerable addition to its possessions.

Among the non-tilling tribes, any supply of food, even if insufficient for the next meal of the family, is insecure if visible to friends or strangers. Custom authorizes everybody to go to the cooking pot and help himself without asking permission. Not only must the savage share the scanty meal with every other person present, but when he finds a large stock of food or kills a large animal, whether wild or tame, he must announce the fact to his fellow villagers, so that they may have their portion. In time of scarcity he must not eat a hare or grouse without taking it to his hut.

Such common property in food is a necessary consequence of the lawlessness and violence of low savagism. The known possession of a large stock of provisions and the refusal to distribute it in time of general scarcity, would have invited attack and destruction. Unlimited hospitality, adopted under the influence of fear and caution, not of affection and generosity, enables the idle and thriftless, the unskillful and the weak, to live at the expense of the toilsome, provident, strong and skilful hunter. It thus discourages extensive cultivation and probably had much influence in delaying the collection of large herds of ruminants, long after single animals had been kept as pets.

As savage culture advanced, the idea of individual property gained strength, and its amount increased. The common stock of acorns, seeds, dried fish, or scorched grasshoppers, belonging to the village was superseded by a stock for each household; and this supply, until it was put into the cooking pot or brought out for a meal, could not be touched by any person save a member of the family.

The introduction of tillage gave a basis for individual title in land, and for the accumulation of tools, food, and weapons, and made a demand for law to protect property. This ownership and law contributed much and were indispensable to the advance of culture. Without their help, our race would have remained savage forever.

Generally the non-tilling savages have no conception of an individual right in land, but in portions of Australia, special families have the exclusive privilege of taking game in certain districts; and similar claims to the exclusive right of hunting are recognized in Unyoro, where tillage is the main dependence of the people. In

some of the tilling tribes, there is an individual or family title to the tract under cultivation. Among the Redmen, the Todas,¹ the Batta Malays,² and some Polyne-sians, the village has a common field, on which every family has its patch which is inalienable and descends from generation to generation, becoming the property of the community when the family dies out, or emigrates. In some tribes of Africa and Hindostan, the family or individual has nothing but a tenancy for a year; and at the end of the crop season, the chief or the village assembly may make a new distribution of the land.

The tilling tribes, organized in feminine clans, give to the wife the ownership of the dwelling and the cultivated land; and among the Moquis, the house, the fields, the trees, the crops, and the sheep belong to her, while her husband claims the horses and mules.³

In New Zealand, property stolen and concealed or withheld from the owner for three days belongs to the thief; and in that group, as well as in the Marquesas Islands,⁴ public opinion justifies neighbors in taking everything portable from a person to whom some great disaster has happened. He is considered hateful to the gods, who delight in seeing men complete the work commenced by the supernatural powers. Among the Samoans and Tongans, the unlucky man may be murdered, after he has been plundered, without offense to public opinion.⁵

SEC. 115. *Slavery*.—Before the introduction of tillage there was no profitable occupation for slaves and therefore little slavery. Agriculture is the foundation of human bondage. All the tribes which have much tilled ground have many slaves, and conversely those which have many slaves have much cultivation. The posses-

sion of numerous bondmen supplied a large stock of food, gave the freemen leisure to devote themselves to military discipline, compelled them to keep in readiness to defend their possessions and led them to increase the strength of their political organization.

Although many of the women are held by the men in a condition of humiliating subjection, there is no proper slavery among the Australians, Bushmen, Lower Californians, Fuegians and Andamanese. The Redmen east of the Rocky Mountains have few slaves. Their tillage is scanty and nearly all its work is done by the women. In many African tribes slavery is a prominent institution, but its highest development in savagism is found in Tahiti, Hawaii and Tonga, where it is cherished and fortified by extensive agriculture, hereditary nobility, hereditary priesthood, and despotic chieftainship.

In many slave-holding savage countries, the proportion of slaves in the total population does not exceed one-fifth, but in Mandingo, it is three-fourths, in Yoruba four-fifths,¹ and in Bondu nine-tenths.² There is no regular market for slaves in savagism, unless men in a higher culturestep have made a demand for them. In Uganda, and other African tribes,³ if a chief wants slaves and other plunder, while afraid to attack any neighboring tribe, he provokes one of his own provinces to rebellion and then enslaves its inhabitants and appropriates their herds.

Slaves are not allowed to decorate themselves in fashionable style. They dare not flatten their heads in the regions where head flattening is customary among the freemen; nor where tattoo is practiced, must they be tattooed unless it be with a simple mark known as that of their master, so that if they escape they may be recog-

nized; nor dare they paint themselves in the styles adopted by the warriors.

In some tribes a man whose person or property has been seriously injured by a slave is entitled to the slave in compensation, and the slave may do an injury for the sake of a change of masters. Among the Foolahs more than one desirable master has lost both his ears.⁴ One form of virtue is its own punishment.

SEC. 116. *Nobility*.—Hereditary nobility, in savagism, implies a compact tribal organization and powerful chieftainship. It cannot flourish under the exogamous clan, and it is especially hostile to the feminine clan. Its origin in war and its devotion to war as its chief occupation, require a more powerful military organization than can be obtained in the lowest phases of social and political development. Its predominant spirit is militant. It must always be ready to fight to maintain its superior political privileges, to keep its slaves in subjection, to defend its property, to acquire more slaves and to protect the power, credit and territory of the tribe.

The increasing accumulation of property in the highest phases of savagism is intimately associated with political inequality and class privilege. When a hereditary aristocracy made its appearance, the old system of unlimited hospitality came to an end. The noble could not treat his slaves as his social equals or give them free access to his stores. He must accumulate stocks of provisions with which to supply them at all seasons of the year. His possession of slaves made it necessary that he should own large tracts of land, to which their toil gave value; and law and order came with the increase of wealth.

Counting the chiefs and slaves, there were four heredi-

tary ranks in Tahiti and Hawaii, six in Ashantee, and in most of the Polynesian groups.¹ In Tonga, the nobles owned all the land, to which the commoners as their clients, were attached. In Hawaii, the rabble were not attached to the soil, but most of them were clients of a noble to whose protection they were entitled and whom they were bound to assist and defend.²

The Micronesians generally are divided into high nobles, low nobles, commoners and slaves. The commoners till the soil, build boats, make nets, carry loads and cook. They cannot have a religious consecration to marriage, nor own land, nor trade with people from another island, nor go out to sea in boats, nor use seines or fish hooks, nor catch any fish save eels. They have no souls, no future life, nor share in the worship and favor of the gods. When a noble passes near them, they must step out of the way and squat down, and in speaking to him they must use peculiar terms implying a recognition of his superior rank.³

Polynesian and Micronesian customs do not permit marriage across the lines of hereditary rank. A noble cannot marry a commoner, nor can a slave woman become the wife of a commoner. Among savages as well as among barbarians and civilized people, it is a more serious offense in a woman than in a man to have a love affair with a person of inferior rank.

In Ashango, every commoner must be under the protection of a noble, to save him from the danger of enslavement.⁴ When his patron dies without a male heir, the client secures a new defender by putting his hand on the head of another noble.

SEC. 117. *Political Development.*—In our examination of savage polity, we have found many indications of

slow and regular development from extremely rude forms. The lowest government known to us is that of the headless group, which has no chief, no political assembly, and no political function save that of defending its members, retaliation for wrongs done being a prominent feature in the system of defense. This group is found only among the non-tilling savages, such as the Australians.

A step higher is the group with unstable headship, in which there are elective chiefs with a brief tenure of office, and with very little power. A grade above this is the condition of stable chieftainship, such as we find among the feminine clan tribes in tilling culture, such as the Iroquois and Creeks. The chiefs though holding office practically for life, have little power. In tribes consisting of masculine clans, the power of the chief increases until it has the support of slavery and nobility, and then becomes despotic. Such governments we find in tropical Polynesia and in portions of Africa. With despotic chieftainship, the influence of the clan diminishes and retaliation is restricted. With the growth of slavery and nobility, the ideas of property rights in land and in stocks of provisions, obtain clearer recognition. The establishment of permanent chieftainship, of the masculine clan, of slavery, of nobility, and of despotic government, each gave a decided stimulus to the military spirit, and each was the basis of some notable improvement in military discipline. Every department of savage polity abounds with the traces of growth.

CHAPTER VII.

MILITARY SYSTEM.

SECTION 118. *War*.—The ancient Greeks had a proverb that “war is the natural state of man,” and their experience justified the assertion, but ours leads us to add the condition “in the lower culture steps.” In the advanced civilization of our day, peace has become the rule, and we can clearly see that industrialism, the natural ally of peace and enemy of war, is rapidly advancing to a controlling influence in human life.

The only savages who take no pleasure in war, and indeed never engage in it, are some few tribes in the polar regions, and in the hills of Hindostan. The Todas, the Greenlanders, and the Eskimos, have no weapons to be used against men, and when war was first described to the people on the shores of Baffin’s Bay, they could not understand why it should exist.

The feeling of kindness, the sense of duty to all men, the horror at the outrages accompanying war, the interests of industry and comfort, and written treaties keeping the precise phraseology of international promises before the eyes, are great safeguards of peace in advanced culture and are lacking in its lower stages. Among savages generally it is not only permissible but honorable to plunder or to slay every stranger, that is, every person outside of one’s own group, clan, or tribe. Though

war does not take up so much of the man's time as the chase or the search for food, he regards it as his principal occupation,¹ without which life would not be worth living.² The hostility of tribe against tribe is handed down from generation to generation, with traditions of triumphs to be rivaled and of humiliations to be avenged.

The lower the culturestep, the smaller the political groups, and the nearer the hostile communities to one another, the larger is the proportion of warriors to the whole population, the more continuous the warfare, the greater the insecurity of life, and the larger the areas occupied by dangerous frontiers.

The first chiefs were those accepted as leaders in military movements. Their leadership began and ended with war or with some campaign, and was limited to matters connected with it directly. The power was advisory rather than mandatory; there was no enforcement of commands among warriors, but as the groups became larger, and warfare more systematic, the need of discipline was felt keenly and the authority of the chief increased, until it became mandatory, permanent, political, and despotic. Out of war grew governments. The first assemblies for the discussion of public affairs, like the first chiefs, had a military origin. The warriors when about to engage in expeditions of great importance to the clan or tribe, met to consult about the plan of action. This was a natural mode of procedure when the chiefs were leaders rather than commanders. The warriors who were to do the fighting were called upon to pledge themselves to hearty coöperation and to share the responsibility of the result.

When in later times assemblies were held for purely political purposes, ancient custom required the warriors

to appear with their weapons, and decorated as for battle. The speaker held his spear or other weapon as if prepared for immediate action, and in his gestures he brandished it, while the auditory applauded him by rattling with their spears or clubs on their shields, as well as by shouts, in a manner that would never have been adopted originally by any save a military gathering.

SEC. 119. *Battle*.—In the battles of low savagism, the warriors fight each for himself and by himself, so that the conflict is not a meeting of two compact bodies each guided by a single commander, but an irregular skirmish in which every warrior selects his own position, advances or retreats as suits himself, and usually keeps at a considerable distance from his friends as well as his enemies.

With paint and grimaces and yells he makes himself as hideous as possible; and tries to frighten his opponents by exhibiting his trophies and boasting of his triumphs in former contests. The skillful warrior will often stand out boldly at a distance of fifty yards from an enemy who throws spears and shoots arrows, each of which is coolly turned from its course, or caught in the hand as it passes.

Among the Australians the throwing and dodging of spears would often continue for several hours before anyone was hurt. The infliction of the first serious wound was considered a victory and was followed by a great outcry and the sudden flight of the defeated party, leaving the wounded man to be beaten, slain, and despoiled of his kidney fat with which the conquerors rubbed themselves. All male captives were slain; the women were kept as wives of the successful warriors.¹

The Australians and Polynesians were so much afraid in the dark of malignant spirits, that they rarely vent-

ured to make night attacks, but he who sneaked into a hostile camp in the darkness and succeeded in despatching a woman or child was regarded as a model of courage.² The glory of the savage consists in killing a member of a hostile village or tribe, without regard to age or sex of the victim or the method of the exploit.

In several Polynesian groups, battle orators devoted themselves to the encouragement of the warriors on their side. One of these howled to his men, "Rush on them like an ocean wave, like a breaker running over a reef. Show your power, your fury, the fury of a raging wild dog, till their lines scatter and they flee like the sea at ebb tide."³ The priests were also warriors, and it was expected that the younger priests should be among the boldest and most active in battle.

The women go to the battle-field to add to the show of strength, to help in making a fearful clamor, to carry weapons and supplies, to watch the hostile movements, to carry off or aid wounded friends, to despatch and mutilate wounded enemies, and to participate in the fight under favorable circumstances. Dahomey⁴ and Uganda⁵ have regiments of women soldiers, armed and disciplined like men, and as efficient as the other sex.

"The boldness with which the European exposes himself in the open field seems stupid to the Indian. He seeks his fame in exploits, combining cunning, speed, and boldness for the purpose of injuring his enemy with little danger to himself. He trusts mainly to the first assault, and when that does not promise him complete success, flight is creditable. An Indian proverb says, 'It is the ambition of the warrior to sneak about the enemy like a fox, to attack him like a tiger and to fly away like a bird.'"⁶

With such ideas, the Redmen pride themselves on tricks considered disgraceful among white men. On one occasion, a Dakota stole into a Pawnee village at night, got into a large hut by descending the chimney, with his knife slew a number of the sleeping inmates before any alarm was given, and when discovered, shouted his war-cry and fled in the darkness. His tribe honored him greatly for this exploit. Worse than this conduct was that of seven Delawares who entered the village of another tribe as pretended friends, and after accepting its hospitality suddenly raised the war-cry, attacked their hosts and fled with their scalps before efficient resistance could be made.⁷

When organizing a hostile excursion, most North American and some other tribes prepare themselves by a war dance to stimulate themselves to fury for their bloody work, and sometimes also to test their powers of endurance,⁸ and prove their fitness for long and exhausting marches. They dress themselves in their war paint, exhibit their scalps and other trophies, brandish their weapons, howl like demons, chant their war songs, predict what wonders they will do, and tell all the evil they know or can imagine of the enemy. Of all the war dances, that of the Maoris is the most impressive and the most hideous. The warriors fix their eyes with a ferocious glare, thrust out their tongues as an expression of defiance, leap about with concerted and violent jumps, and shriek loudly, the combined action having an effect that gives a contagious frenzy to every warrior of the tribe, and that fills others with horror. In the dance the participants are a compact body and their movements uniform; but on the battle-field they scatter and each fights by himself. The confidence, with which they are

filled by their preparatory capers, soon evaporates if the luck of the contest turns against them, and they can show as much energy in running from danger as in dancing. But flight does not disgrace a savage. It is not until men learn to fight in compact masses that discipline requires them to stand firmly while men continually fall near them, under the hostile missiles.

Those tribes which built large boats, fought on water as well as on land. In some of the Polynesian groups, a war canoe would hold from sixty to a hundred men, and small as were their islands, thousands of combatants would meet in a naval battle, and with greater loss of life than on land, for at sea when a boat was disabled, its inmates were all slaughtered. The Hawaiian canoes carried standards by which they could be recognized at a distance.

SEC. 120. *Trophies*.—Trophies taken in the chase and in war have been prized in all culturesteps. Among those of the hunter are the tail of the fox, the horns of the antelope, deer, and elk, and the skins of the lion, tiger, leopard, and bear. As evidences of success in war, heads were exhibited by the Egyptains and Jews of antiquity,¹ and by the Dyaks and Paladans of Borneo, the Mundrucus, the Nagas, the Abipones, the Maoris, and the Samoans of modern times; skulls by the Congoese, Ashantees, Dahomans, Kukis, Botocudos, Marquesans, Batta Malays, and some Melanesians; scalps by the Dahomans, many North American tribes, the Nagas and ancient Scythians; jawbones by the Tahitians, Vatéans, and some tribes of New Guinea; hands by the Khonds; forefingers, thumbs, and big toes by various tribes; teeth by the Kingsmill Islanders; and other parts by the Gallas, Abyssinians and Apaches.

In many tribes a trophy indicating that the possessor has killed a human being is indispensable to an honorable social or political position. Without it the man cannot get a wife, wear the decoration of a warrior, or appear in the public assembly.

SEC. 121. *Fortifications*.—Fortifications make their first appearance in tilling culture. They are not found in Australia, Tasmania, or Lower California. The most numerous and extensive class of savage fortifications are those of the Mound-Builders, erected several centuries since in the United States east of the Rocky Mountains. Next to these come the pile villages of the Swiss lake dwellers. After these are the villages of the Maoris and Iroquois surrounded with palisades and trenches. The Tahitians, Hawaiians, Fijians, and many African tribes have carefully constructed fortifications.

The remains of the fortifications of the Mound-Builders (as they have been called), in the Mississippi basin, are numerous, and vary in the areas inclosed, from twenty to two hundred acres. In most cases, the sites are on hills near fertile valleys with springs or streams in the near vicinity. They are usually of earth, rarely of rough stone, and when first known to white men, the earth walls were so broad and flat that a man might walk over them without suspecting that he was stepping on a work of art. If on the top of a small hill, the wall follows its shapes; if the fortification be on a large level space, it may have the form of circle, square, octagon, or long parallelogram.

Fort Ancient, near the eastern bank of the Little Miami River, thirty-three miles from Cincinnati, is on a hill two hundred and thirty feet above the level of the stream. An area of one hundred acres, with a shape re-

sembling that of an hour-glass, is enclosed by five miles of earthen wall, which follows the brow of the hill. The walls are in places twenty feet high, and opposite the gateways on the inside are mounds on which are piles of stones brought up from the river bed, presumably to be used in throwing at the enemies. A spring and reservoirs inside of the fort furnish an unfailing supply of water.

Near Portsmouth, Ohio, a connected series of defensive structures extends eight miles along the bank of the river on both sides. An enclosure eight hundred feet square, two parallel walls two thousand one hundred feet long, four concentric circles intersected by four broad avenues, a large truncated cone mound, and an avenue a mile and a half long between walls, from the mound to the river, are among the features of these ruins.

Most of the works of the Mound-Builders are found not in the prairie regions, but in the forest where artificial elevations were needed for giving signals. A line of signal mounds extends for a hundred miles along the Scioto valley, and a similar line in the valley of the Miami gave facilities for sending news sixty miles.

One of the most remarkable of these structures, twelve miles west of Chillicothe, Ohio, on the summit of a hill four hundred feet above the valley of Paint creek, encloses an area of one hundred and forty acres including a lakelet of two acres. The material of the walls is rough stone, which was evidently laid up with care though most of it has now tumbled over. There were five gateways, near which the walls were higher and wider than elsewhere. Inside of the enclosure were two stone mounds on which hot fires had been maintained, as the stones now show the influence of intense heat.

At many places there are remains of works commenced and never completed. In Wayne Township, Butler County, Ohio, a series of eleven hillocks or small mounds indicates the outline of a circular wall that was not finished. At Alexandersville, Ohio, are the remains of three enclosures abandoned before completion.

SEC. 122. *Initiation*.—The ceremonies observed by many tribes at initiation into the ranks of men and warriors, and into the office of chief, may be considered part of their military system. There is a widely prevalent custom that before assuming the arms and claiming the rights that go with their use, the young man must prove his fortitude by passing creditably through a very painful probation. Until he has done so, he cannot join a military expedition, participate in a deliberative assembly, take a wife, acquire property, or become a chief or priest.

The most severe probation of this kind known to us, or the one most accurately described by a trustworthy witness, is that of the Mandans, and the initiations of the Cheyennes, Dakotas, Chippeways, Minitarees, Arickarees, Poncas, Hidatsas or Gros Ventres, and Blackfeet, are similar; as are presumably those of many if not most tribes of the Redmen east of the Rocky Mountains. George Catlin is the only author who claims to have witnessed these ceremonies in all their important stages, and who has given us a precise account of them.¹ At the time he was a favored guest of the Mandans, and he was allowed to see what had been hidden from other white men who had dwelt in the village for ten years or more. He was invited to be present at the ecclesiastical festival in the spring of the year 1830. At sunrise, the sacred hut in which the ceremony began was opened,

and the aspirants, about fifty in number, entered. Some warriors and a few chiefs and priests, Mr. Catlin and three white friends admitted at his request, were present. Each of the nude aspirants carried his bow, quiver, and shield, which he hung on the wall over the place where he sat down. A priest sitting near a fire in the middle of the hut smoked a sacred pipe and occasionally addressed prayers to the spirits or Great Spirit to favor his tribe.

Thus three days passed. The aspirants did not leave the hut, nor eat, nor drink nor sleep. On the fourth day, in the morning two priests entered. One, whose face was covered by a mask, carried a double-edge knife with edges hacked, so that it would make a painful cut. The other, unmasked, had a package of wooden skewers, five inches long nearly half an inch thick and pointed at both ends.

The priest with the skewers pinched the arm above the elbow of one of the aspirants, and while he held it, the masked priest thrust the knife through making a hole in which he put a skewer, over which the flesh at the thickest was perhaps half an inch deep. This operation was repeated below the elbow, and in the other arm, and in both legs above and below the knee, so that the young man had eight skewers in his flesh. A similar skewer was inserted in each breast or each shoulder, every aspirant indicating by a sign whether he preferred to have them before or behind. This cutting and skewering was endured by all without a groan and by most of them with smiles of triumph.

The skewers being in place, the aspirant's shield was attached to the upper one on his left arm, and a buffalo skull, weighing perhaps eight pounds,² to each of the

eight skewers on his arms and legs. By ropes passing over poles in the roof of the hut, and fastened to the breast or shoulder skewers, he was then hoisted until his feet were three or four feet above the ground, and the buffalo skulls swung clear. A man with a pole pushed the suspended aspirant in such a manner as to make him turn around and the sufferer broke his silence by heart-rending prayers to the Great Spirit to aid him on his trial. All the aspirants used the same form of prayer, indicating that they had been taught what to say. After ten or twenty minutes of swinging round, fainting gave relief, whereupon the body was lowered to the ground and left to itself. When the aspirant recovered consciousness, he rose, and walked to one side where he sat down in front of the masked priest. After holding up the little finger of his left hand, as a thank-offering to the Great Spirit for enabling him to endure his trial, he laid it on a buffalo skull. The masked priest by a blow of a hatchet cut off the finger. The sacrifice of one finger was compulsory; on rare occasions an aspirant, to show superior endurance, would offer up also the forefinger of the same hand. The wounds thus inflicted, though not bandaged or otherwise treated, were not followed by inflammation nor by much bleeding.

After six or eight young men had submitted to the hoisting and finger sacrifice, they were taken in a party out of the hut, and each with his four buffalo skulls fastened to his leg skewers, and with a friend at each arm to help him along, ran round a prescribed circuit and kept running until he fainted or until all the skewers tore out. If he fainted, some friends dragged him round face downwards, while other friends jumped on the skulls to make the skewers tear through the flesh. So soon as

all had torn out, the young man, abandoned by his friends, went to the hut of his parents where he could hide himself from the public gaze, and obtain nourishment and sympathetic attendance.

Those who hung longest without fainting, who ran longest dragging the skulls, and who recovered soonest after fainting, were considered the most promising warriors. It was necessary that the flesh over the skewers should tear out. Cutting out would not do. Catlin heard of one aspirant who died in the ordeal. He does not say distinctly, but he implies, that he had never seen one, or heard of one, whose fortitude failed him in the trial.

The torture at the initiation of the Cheyenne aspirant for admission to the rank of warrior has been described by Col. R. S. Dodge. The young man is taken out of the camp by his nearest warrior relative who makes two vertical incisions three inches long and two inches apart in the muscles of the breast, and then lifts the intervening strip from the bone, so that a hair rope three-quarters of an inch thick can be passed under the flesh. The rope is tied to a strong pole twenty feet from the ground, so that the young man can run about twelve feet without stretching the rope; and his trial is to throw his weight against the rope in such a manner as to break through those two strips of his pectoral muscles. He has no help, no company, no food, no drink, no bed, and if he is to be an honored warrior there he must stay until he tears out that stubborn flesh, perhaps with the help of partial mortification. If he prefers, he may have the cuts made in his shoulders, and in that case instead of being fastened to a post some movable object, such as a buffalo skull, is tied to each cut.³

If the aspirant should find that the trial is too severe for him, he will be untied, at his own request, but then he falls into disgrace, becomes a man-squaw, without the right of marrying, of holding property, of carrying arms, of participating in the public assemblies, or of associating with the warriors. Among six hundred southern Cheyennes, only one failed to go through the initiation with success.

The aborigines of New England have their system of torture for admission into the warrior class,⁴ and so have the Kolushes of British Columbia,⁵ and the Muras of South America.⁶ A Californian tribe beats the aspirant with nettles and compels him to sit down on a nest of angry ants which bite him cruelly.⁷ Among the Mundrucus, he must thrust his arm into a tube full of irritated and venomous ants.⁸ In the land of the Payaguas⁹ and in portions of Australia,¹⁰ and Central America,¹¹ the young man is required to submit to painful piercings with thorns and cuttings with knives. Cruel trials are imposed on youths by the Caribs¹² and by certain Arab tribes.¹³ In Dongola there are bitter duels with whips of hippopotamus hide, until one of the duellists falls exhausted by the loss of blood.¹⁴ The Kaffirs,¹⁵ Arowaks,¹⁶ Mundrucus¹⁷ and aborigines of Guiana¹⁸ have severe switchings for youths. If a Bishareen boast of his courage, a hearer may draw out a knife and cut long gashes in his arms shoulders and sides, whereupon the boaster must do likewise or be disgraced.¹⁹

In New Britain, two masked men called dukduks, clothed with a sacred office, come about once in two months into every village and give cruel beatings to all the men between the ages of eighteen and thirty-three. For two weeks in succession, these young men are called

together repeatedly every day, some days as often as twenty times, and required to stand up and submit without complaint to a severe blow from the stiff cane of one dukduk and another from the tough flexible switch of the other. The switch encircles the body or leg and cuts through the skin at every stroke. For fifteen years, if he live so long, every man in New Britain is subject to this torture.²⁰

Many tribes require the aspirants for an elective chieftainship to submit to severe tests of endurance. Thus the Galibes, a tribe of the Caribs, require him to submit for six months to at least six blows daily from a switch that encircles his body or leg and cuts through the skin all the way round, at every stroke.²¹ Another branch of the Caribs bury the ambitious man to the waist in a nest of venomous ants.²² A third tribe of the same family compel him to drink a large cupful of a strong decoction of red pepper.²³

These tests of endurance are so far beyond what civilized men would submit to voluntarily, that if the reports were made to us by only a single witness they would be incredible; coming to us as they do by many different witnesses with an overwhelming accumulation of evidence, we must believe them, but with a feeling that there is something here almost incomprehensible. Accepting the statements we must draw two inferences; first that these men in low culture, perhaps because of the greater exposure of their skins to the sun, are far less sensitive to physical pain than we are; and second that the reputation for courage and for firmness in submitting to agony without complaint, is far more important in their mode of life than in ours.

CHAPTER VIII.

RELIGION.

SECTION 123. *Spirits*.—The belief that the human soul continues to exist, as a conscious personality, after the death of the body, is the beginning and foundation of religion. In every tribe of modern savages, it exists accompanied by the supposition that disembodied spirits take much interest in human life, and especially in that of their relatives; that they have much power to aid and injure those living in the flesh; that they use this power frequently; and that, in its exercise, they are influenced by neglect and defiance, to do evil, and by worship, offerings and praise, to protect and to bless the living. "The ghost," as Spencer says, "is the primitive type of the supernatural being."

On many important points, the religious belief of the low savage is extremely vague.¹ According to Waitz² "it is a dim faith in ghosts and spirits." His opinions are not based on reason and evidence; nor are they arranged into a complete creed, consistent in all its parts. He has great difficulty in explaining his belief in reference to future life. In many cases, he considers it sacrilegious to mention the names of the dead, the spirits of the gods, or to perform any religious ceremony in the presence of an alien. Of the intellectual confusion on such subjects, examples are furnished by some Kaffirs

and Malagasies, who though they say the soul dies with the body, yet worship their ancestors, bury the dead with ecclesiastical rites, have priests and sorcerers, and treat some beasts as sacred. Practices implying belief in superior invisible powers, which may be propitiated, are found in every tribe, whose manners, customs and intellectual condition have been fully described to us by intelligent observers. The assertion, that religion is entirely lacking in any tribe, is based on a misconception of the definition of the word religion, or on ignorance of the opinions of the community in question. It has been said that the Bushmen,³ the Bongos,⁴ the Andamanese,⁵ the Arafuras,⁶ the Damaras,⁷ the Hottentots,⁸ some Malagasies,⁹ and various tribes of Equatorial Africa have no faith in a future existence, and that the Fuegians the Juangs,¹⁰ the Latookas,¹¹ the Dinkas, the Wanyoros, and the aboriginal Californians have no religion. Yet all these tribes fear ghosts and have sorcerers. Belief in sorcery is one of the most prominent features of savage religion.

The main evidence of animism or the belief in spirits, among savages, is furnished by dreams, which are more numerous and more vivid in low than in high culture-steps.¹² When the food supply is scanty, innutritious or unwholesome, and when life passes in the midst of a rapid succession of great dangers,—and such circumstances are common in many tribes,—the brain becomes excited, and sleep abounds with vivid and fantastic visions, in which people are seen acting, and heard speaking, with great distinctness. The delirious fever of famine is filled with such experiences; and so is the fever brought on by the voluntary fasting enjoined by many of the savage religions. The North American Indian boy seek-

ing a guardian divinity, the African priest hoping for a revelation of the results of a projected military expedition, and the Siberian shaman preparing to give an oracular response to his chief, all abstain, for several days, from eating, with the utmost confidence that the brain will then get many impressions that would not come to it while the stomach had its ordinary supply of food.

SEC. 124. *Imaginary World*.—This realm of spirits was created by the savage imagination which, according to Lippert, harnesses its conceptions, as if they were material forces, to the vehicle of human life.¹ Many authors suppose that the fancy, unaided, is powerful enough to destroy life; and that it is sufficient to account for the fatal results of the sacerdotal curses in Polynesia and Africa;² though other observers assume that secret poison counts for much more than the imagination in such cases.³

To the enlightened man, an ordinary dream is a meaningless trick of the brain; to the savage, it is an actual experience of his soul while absent from his body. Such a belief prevails among most of the tribes of America, Polynesia, and Africa.⁴ They suppose that the phantoms of the persons, seen and heard in dreams, are the souls of the living, absent temporarily from their bodies. The communications, received in dreams, are sacred. When they can be interpreted as prophetic, they must if possible, be fulfilled.⁵ Thus, when a man has done a thing in a dream, he must do it awake. Early in the last century, an Iroquois chief told the Governor of New York of a dream in which the latter gave him a military uniform such as was worn by a British general. The Briton, understanding the savage ideas of such dreams, said this one must be fulfilled, and he presented

the coveted dress to the chief and at the same time told of a dream in which the latter had ceded to him all the territory between two rivers. The chief gave up the land but added that he would never dream with the governor again. As Henry Maine says, "early religions are composed of such stuff as dreams are made of."⁶

Sleep, swoons, and trances, are conditions, in which, according to savage opinion, the soul leaves the body. Sickness is attributed to the soul's habit of deserting or its desire to desert its tenement, or to the invasion of the body by a hostile soul. When sick, the Fijians, Caribs, Arowaks, Fantis, Loangoes, Karens and Hos pray the soul to remain, reproach it for wanting to go, bawl out to it to come back (as if it had already started) or employ a priest to counteract the influence of the imaginary sorcerer, who is trying to entice the soul away from the body.

According to the faith of many tribes, every person has several souls. His breath is one,⁷ his shadow another, and his reflection in the water a third.⁸ When he dreams, one of his souls either pays or receives a visit.⁹ Even when awake and without his knowledge, one of his souls may enter the body of an enemy, attack its organs, and cause disease. In many countries it is highly impolite to tread on a man's shadow, which is one of his souls. So long as the body has a shadow, so long a soul remains in it.

Savages generally believe that the excarnated soul dies after a time, either in the natural course of events or by violence. It may be eaten up by cannibal spirits or by gods. It may be slain in various ways. Since it revisits the living in dreams, it does not necessarily die with the body. With the lapse of time, its visits become

rare and finally cease. Its spiritual life has then come to an end. Its existence does not continue more than a generation or two.¹⁰ The disembodied soul of the father is alive, that of the great-grandfather is not.¹¹ Among the Mangenyas, the life of a spook is about as long as that of a material man.¹² The Hill Dyaks suppose that the future existence is very brief. The hut where a death occurs, is taboo for twelve days and during that period is haunted by the spirit. Nothing must be taken from it and no outsider must enter it or speak to any of its occupants.¹³ The Tahitians imagine that, in the course of time, most of the excarnated souls are eaten by the gods or by other souls, just as in regions occupied by cannibals, many of the rabble are, sooner or later, eaten by the warriors.¹⁴ Among the Maoris, the soul is destroyed when the body is eaten¹⁵ by cannibals; among the Fijians, when the man dies before marriage;¹⁶ among the Harvey Islanders, when he dies a natural death; among the Hurons, when he commits suicide; among several North American tribes, when he is scalped or hanged;¹⁷ among the Damaras, when he is eaten by wild beasts.¹⁸ among the Matiamba, when his corpse is thrown into the water; and among the Bushmen when a fire is built over his grave.¹⁹ The Fijian believes that, after death, he will have to fight his way into the realm of spirits and if defeated, his soul will die immediately and forever. In Guinea, immortality belongs only to those who observe the feasts and ceremonies of the established religion. The soul of the defunct Marambo husband clings to the neck of his widow, and before she marries again, she dives into a river and washes the unwelcome incumbrance off into annihilation.²⁰ When the cannibal eats his slain enemy he not only destroys his enemy's soul, and thus

protects himself against spiritual persecution, but he also adds the spirit and courage of the dead man to his own. The Chavantes of South America eat the bodies of their children who die naturally;²¹ and some Australians give the flesh of a dead child to its surviving brother, or even kill one child to strengthen another.

As dreams are more frequent and more vivid in savagism than in civilized life, so also are several abnormal physical conditions, including clairvoyance, somnambulism, and double consciousness. High sensitives are numerous in many tribes, and they attribute their abnormal perceptions to the aid of spirits; that is they accept a current statement which had its origin in the imagination. Many of the phases of modern spirit manifestation and mediumship are found among low savages; and in all cases they have no bases save delusion or trickery. An abnormal perception there may be often; a supernatural communication, never.

SEC. 125. *Devout Fear*.—In non-tilling culture, the most common faith regards the spirits as predominantly malignant; as beings to be feared rather than loved, to be avoided rather than sought, to be propitiated rather than praised. Disease, death, defeat, drought, storm and famine are attributed to them, while health, life, victory, pleasant weather and abundant crops are accepted as coming in the ordinary course of nature. A Roman proverb says, "Fear first made the gods."¹ According to the Japanese, "The gods, who do harm, must be propitiated."² The Hebrew Scripture tells us that "The fear of the Lord is the beginning of wisdom;" and in old English maxims we read that "Fear is the mother of devotion," and that "Man's extremity is God's opportunity."

In early culture, the spirits of the dead are exacting, jealous, revengeful and malevolent.³ The survivor tries to avoid them. One of the first acts of soul-worship⁴ is the abandonment of the dwelling of the deceased. The Lepchas and Kamtschatkans leave the hut with the corpse and never occupy it again; the negroes of Duketown abandon it for a year; and the Coroados and Creeks leave the village and its site for a year.⁵ There are two motives for abandoning the home of the dead, first to get beyond his reach, and second to give him undisturbed possession of the food supply of the district.⁶ The excarnated soul is supposed to need food and to get it just as the living warrior does. It is not necessary or customary to move for a child, a woman or a slave; these have little power to hurt. The greater the rank and the military power of the dead, the more dangerous he is to the living.

The Damaras throw the corpse out to the wolves, so that the soul shall be destroyed and prevented from returning to annoy and injure its relatives.⁷ The corpse of the Siamese is taken from the hut not through the door, but through a hole cut for the occasion in the wall and then carried rapidly three times round the house, so that the spirit cannot find its way back. The hole in the wall is closed up permanently without delay, so that if it should come back it cannot enter. There is a supposition that it must come in where it went out.⁸ A similar idea leads some inhabitants of ancient Hindostan to tie the feet of the dead together, and perhaps influences some South Americans, when they tie the body in a sitting posture and crowd it into a clay pot before burial.⁹ Sharks, crocodiles, wolves and vultures are venerated in many countries for their services in eating human bodies

and protecting the living against the persecution of the spirits. Every year the priest in the Nicobar Islands drives the spirits which haunt every house into a canoe, which he sets adrift, with its cargo, in the sea. There is a similar custom in the Maldivé Islands.¹⁰ When a house has been built in New Zealand, a priest consecrates it with prayers and sleeps in it alone, to drive away evil spirits, before the owner takes possession.¹¹ In Hawaii and Tahiti, prayers are addressed to the spirits, begging them to stay away.¹² The Mishuris say, "We are everywhere surrounded by demons; they live in the rivers, mountains and trees; they walk about in the dark and live in the winds; we are constantly suffering from them."¹³ Among the Quaiquas, Korannas, Basutos, Oedos, Mpongwes,¹⁴ Angolese,¹⁵ Greenlanders,¹⁶ Mosquitoes, Abipones,¹⁷ some Kaffirs,¹⁸ and some Lower Californians, the only spirits worshiped, and perhaps the only ones recognized as existing, are evil. Many tribes which believe also in good spirits, consider it useless to devote any attention to them, because their goodness is a mere abstinence from doing injury. Such are the Indians of Virginia and Florida,¹⁹ and of many other parts of North America. Fear of demons is the chief feature of the religion of the Tinnehs and of the Katschintzo Tartars.²⁰ A Malagasy praying said, "Nyang, wicked and powerful, do not make the thunder roll over our heads. Order the sea to stay within its bounds. Spare, O Nyang, the ripening fruits; and do not blast the blossom of the rice."²¹ A Lepcha of Hindostan said, "The good spirits do us no harm; the malignant spirits who dwell in every rock, grove, and mountain are constantly at mischief and to them we must pray for they hurt us."²² In Australia, Tasmania, Fiji and in many of the Polynesian islands,²³ the

night air is full of evil spirits seeking men whose souls they may eat.²⁴ For fear of them the people rarely leave their huts at night, unless under some very urgent impulse, and then they carry a firebrand with which to scare away the demons. On the Malay peninsula, a fire to drive away the evil spirits is built in front of the hut when a child is about to be born.²⁵ In Iceland, a firebrand is carried round the hut to protect it against the same enemy.²⁶ Before pouring out water, the Bedouin asks forgiveness of the efreets or evil spirits.²⁷ When bathing, the Alfuras pray, "Let the water take sickness, fatigue and evil dreams to the evil spirits." On important occasions, the Dyaks propitiate the spirits with the head of a human victim murdered for the purpose.²⁸ The spirits of the dead are so malignant in Sumatra that the most destructive man-eating tigers are supposed to be possessed by them.²⁹

An Australian priest conducting the ceremonies at a grave said, "The dead man has promised that if his murder should be sufficiently avenged, his spirit will not haunt the tribe nor cause them fear, nor mislead them into wrong tracks, nor bring sickness among them, nor make loud noises in the night."³⁰ This language implies that unless appeased, the spirit would do all the malicious acts mentioned.

Among savages generally, all evil is attributed to the influence, all disease and death to the possession of malignant spirits. There is no conception of, or at least no belief in, a natural cause for a decline of health or strength, or for a cessation of life. All aches are brought upon us by demons which have entered our bodies, either at the instigation of their own malevolence or under the control of some sorcerer. In many tribes

it is assumed that every death is the result of witchcraft which can be discovered and traced to its author by a priest, and must be traced and avenged before the soul of the dead man can rest. Until satisfied, he torments his relatives for their neglect of duty to him.

Epilepsy and apoplexy are attacks of malignant souls; sneezes, yawns, and shudders are unsuccessful attempts of evil spirits to get possession of the body. In many savage tribes and barbarous nations as well as in some civilized communities, when a person sneezes, he must be congratulated on his escape from the demon by some such phrase as "God bless you," or its equivalent. After he has yawned, the Arab exclaims, "I take refuge with Allah, from Satan the accursed," and the Tyrolese peasant crosses himself.³¹ A Jewish proverb which says, "Open not thy mouth to Satan," doubtless had its origin in the same idea.³² Among the Tongans, a sneeze by any person about to engage in an enterprise, is an omen that he will fail.³³

Livingstone says of the people of Angola: "When the natives turn their eyes to the future world, they have a view cheerless enough of their own utter helplessness and hopelessness. They fancy themselves completely in the power of disembodied spirits, and look upon the prospect of following them as the greatest of misfortunes. Hence, they are constantly deprecating the wrath of departed souls, believing that if they are appeased, there is no other cause of death but witchcraft, which may be averted by charms."³⁴

SEC. 126. *Next Life*.—As dreamers see the dead taking part in the ordinary business of life,—working, playing, hunting, fighting, talking, laughing, crying, eating, and drinking,—so popular belief teaches that the disem-

bodied spirits have the same wants and gratifications, the same pleasures and pains, the same trials and triumphs, the same occupations and amusements, the same affections and passions, the same loves and hates, as in the material life. They need food, drink, clothing, shelter, warmth, light, tools, arms, dogs, friends, slaves, and wives, all of which they find in the spiritual world. They help their living friends and hurt their foes. They see and recognize the souls of men whom they knew on earth. They bless or curse other spirits; they fraternize or fight with them. They taunt, wound, capture, enslave, slay, torture, scalp, roast, and eat one another, as if they were still in the body.

In his new home beyond the grave, the spiritual man will need spiritual food, spiritual clothes, and a spiritual hut; he will shoot spiritual game with spiritual arrows; he will fight spiritual enemies with spiritual weapons. The souls of living beasts can be sent to the world of spirits by killing them; and the souls of inanimate objects can be released by breaking them. If the killing or breaking be done at the grave of the man recently dead, he is placed in possession of the spirits of the tools, beasts, or slaves there released.

As the future life is to be a continuation of this one, so the chieftainship, nobility, distinction as a warrior, and any notable characteristic of a man on earth will also belong to him in the skies. The Fijian or Tahitian chief will have as many subjects and servants there as here, and all the enemies slain by a Karen here, will be his slaves there.¹ In Cochin China, the poor people will not celebrate the annual feast of the dead on the same day with the rich for fear that the spirits of the rich, being then on the lookout, and being more powerful, will

appropriate the presents, and, besides, will enslave the poor spirits.² The Kaffir prays to the spirit of his dead chief to compel the ancestor of the worshiper to bless and protect his descendant.³

According to the creed of many tribes, the soul lives forever in the condition of the man at the time of his death. If he was then deaf, blind, lame, toothless, or decrepit with age, so his soul will be forever. A man killed in the dark remains in darkness forever. Age does not advance there, but he who has grown very old here, will continue to be senile there. The other life being higher in dignity than this one, the warriors in many tribes have no desire to live here beyond the age of forty or forty-five. When Wilkes visited the Fiji group, about 1840, he found no aborigine that seemed to have passed his fortieth year. It was the duty of the son to slay the father, though he sometimes waited until the latter requested this favor. The Vatéans bury their parents alive;⁴ the Chippeways strangle or otherwise despatch their relatives soon after the decline of life begins.

In various tribes, the spirit stays near its home in the flesh, or near its grave. In other tribes, it lives in a distant realm of souls, and occasionally revisits its relatives and its former abode.⁵ In Polynesian groups, composed of small islands, the spirit home is in islands to the westward; in large islands and continents containing mountains, the world of spirits is in the mountains, as it was in Greece in Mt. Olympus.

The belief that brutes and inanimate objects have souls which accompany the spirits of men in a future life though accepted by savages generally,⁶ is not found among the Australians, Tasmanians, Andamanese, Fuegians, and Bushmen;⁷ and among these tribes mentioned

is lacking, perhaps, because their stock of accumulated property is so exceedingly scanty that they have nothing to offer to the dead. The lack of material for offerings may have prevented the establishment of a custom that would gradually have impressed the faith on the public mind.

SEC. 127. *Burial, etc.*—The disposal of the corpse belongs to the domain of religion. In many countries it gives occasion to the highest expression of religious feeling. Among the Eskimos, Kamtschatkans, coast Chookchees, Mahenge and Wahebe, the body is thrown out to be devoured by wild beasts, and the surviving relatives, when passing near the remains, show no signs of grief. There is reason to believe that the prehistoric cave dwellers in Europe treated their dead in the same manner. Some tribes say that if the body is eaten by wild beasts, its spirit will be destroyed and thus will be prevented from returning to persecute the living. Those tribes which have outgrown this fear of persecution are careful to preserve the corpses of their relatives, or at least of their warriors, against desecration by wild beasts.

Among the reverential modes of disposing of the dead, customary among savages, are burial, burning, keeping on high platforms or on steep rocky points in the open air, and embalming. Of these, burial is the most extensively prevalent. It exists in Polynesia, Melanesia, Africa, and much of America. In New South Wales the young are burned and the old buried; in portions of California, both cremation and burial are used.

The treatment of the corpse depends in many regions, on the station of the person in life. Slaves, women and children are thrown out to the beasts, by tribes which bury the common warrior in a shallow grave, and the

chief in a deep grave or under a mound. The Dahomans, Fantees and some other African tribes bury the dead man in his hut, which is then abandoned as a dwelling, though it is visited occasionally by mourners and worshipers. Where the huts are built with little labor, as in Kaffraria, the village, in which a prominent man has died, is abandoned.

In Angola, the corpse is buried only a few inches deep in the hut of its owner, and a fire is kept burning over it for a month. At the end of that period the remains, having been reduced to a dry condition, are exhumed and kept as a mummy in the hut for two years, and then they are finally buried. In New Zealand, after a body has been in the ground eight months, the bones are dug up, cleaned and buried again. On the eastern coast of Madagascar, the corpse is suspended in a hut until the bones fall apart and then they are buried.

West of the Mississippi a common custom is to sew up the corpse in a buffalo skin and lay it on a rude floor of poles about ten or fifteen feet above the ground, supported by posts or the limbs of a tree.¹ Some tribes, after having thus disposed of a corpse, pay no further attention to it; others bury the bones, when the flesh has decayed. The Redmen on the banks of the lower Columbia put their dead on top of steep rocky points, or on elevated platforms. In the Shir valley, the corpse is wrapped in a mat and suspended in a tree or in the deserted hut of the owner.

In Usekke,² the corpse of a chief having been set upright in a hollow tree is attended day and night by men of his tribe, who pour beer over him in the day and make loud lamentation at night until putrefaction is far advanced; then the remains are put on an elevated

platform and kept there until nothing remains save the bones, which are finally buried. The Okinagins bind the body to the trunk or branch of a tree with such wrappings as to keep the bones in place long after the flesh has disappeared. In parts of Melanesia, the corpse is placed in a canoe and launched in an inlet when the tide begins to ebb so as to be carried out to sea.

The Tahitians embalm their chiefs and great nobles. They take out the brains and intestines, oil the body all over every day, and keep it in the sun turning it frequently, until it dries so that it will keep for several years. After the head has separated from the body, the skull is cleaned and kept for family worship, and the other remains are buried. In Virginia and New Guinea, the body of a brave warrior is dried before a fire and kept for years.

In some countries, before burning or burying, the corpse is bent at the hips, knees and elbows so that it can be tied together in a compact form; in others the backbone is broken, to facilitate the process of tying together.

Most tribes in their burials pay no regard to the points of the compass, but the Samoans and Fijians, believing that the land of spirits is in the west, bury their corpses in a nearly horizontal position with the feet and face towards the evening sun. The Winnebagoes turn the face to the west, and put the body in a sitting position. A similar position is customary with the face to the east among the Yumanas and the Australians.

SEC. 128. *Mourning*.—General custom demands much demonstration of grief from the relatives of the dead warrior, and especially from the women. The methods of mourning include loud lamentation, shaving the

head, smearing the scalp and face with black pitch or paint, breaking out teeth, amputating a finger joint and cutting gashes in the flesh with a knife or whip. In some tribes the wailing is not limited to the interval between the death and the burial, but is repeated for years whenever a woman relative passes near the grave. In portions of Africa, Australia and North America, the mother carries the corpse, skeleton or wooden image of her child, and the widow carries the skull of her husband with her for months or years, and frequently talks and offers food to it. The show of grief sometimes takes the form of frenzy, as if reason had been dethroned. In Tahiti and Ashantee, the death of the head chief is a signal for a reign of anarchy in which all kinds of crimes are committed. Among the Gonds, at such a time, the ordinary laws of sexual propriety are suspended. To demonstrate his sorrow for the death of his mother, a Kaffir chief slaughtered several thousand subjects.¹

The mourners for a Samoan chief sit at his grave for ten days, and keep a fire constantly burning there during that period. The Nez Percé mourners dance and sing every day at the grave of their chief for thirty days. The Chippeway mourners maintain a fire at the grave for four days, at the end of which time they say his soul has reached the spirit world.²

Teeth are broken out among the Pacific islanders and some negro tribes. Cutting until the blood flows freely is common in Polynesia, Melanesia, North America, and parts of Africa. The Maoris make the marks durable by rubbing in charcoal.³ The mourning cuts of the Tongans are made on the body under the armpits, on the inside of the thighs, and through the cheeks. The Flat-heads cut out pieces of flesh;⁴ and the Hawaiians some-

times gouge out eyes. The amputation of a finger joint is fashionable mourning among the Redmen and Poly-nesians, and after two joints have been taken from each little finger, it is sufficient to cut off the end of a stump so that it looks as if freshly amputated. In Guiana the young men nearly related to or intimately friendly with the deceased must engage in duels with switches, which cut through the skin and cause much loss of blood.

The mourning among the Indian tribes west of the Mississippi after the death of a chief is thus described by Dodge: "The quiet rivalry of attention to his wants heretofore [while living] displayed by them [his wives] gave place to a furious rivalry in demonstrations of grief. All howl continuously and in unison; but lest the more strongly lunged should obtain advantage in this exercise, they continue the rivalry in such acts of self-abasement and self-torture as are almost incredible. The hair is hacked off, the clothing torn from the person; ghastly, horrible, and even dangerous wounds are inflicted; their breasts are slashed open, their arms and legs slit and cut with knives; their faces and persons disfigured; and, covered with blood and dust and filth, they croon and wail and howl until nature is exhausted. It is only wonderful that death does not more frequently ensue from these self-inflicted tortures, for the women appear to be perfect maniacs for the time, and cut and slash themselves without regard to consequences."⁵

At the funeral of Finau I., king of Tonga, one of the chief mourners among the warriors said, "Finau, I know your thought; you went to Pulotu supposing your people were not loyal to you; that I and others were not faithful to you; but where is the evidence? Where is the least sign that we were not devoted? [Here he

struck himself with his club.] Is not that proof of my sincerity? [Here he struck himself again.] Does not that show my attachment to you, my beloved warrior and king? ”⁶

SEC. 129, *Soul Worship*.—Among people who believe that disembodied spirits have the power to help and hurt the living, and the desire to be propitiated by gifts and praise, there is no distinct line of separation between mourning and worship. Lamentation for death, and sepulture or cremation, according to the customary rites, are obligatory not merely out of regard to the feelings and interests of the surviving relatives, but are necessary for the welfare of the dead, who, without these attentions, cannot be happy in the world of spirits, and in some tribes cannot even reach it. The Polynesians, Brazilians, Karens, many Redmen, and some Australians, believe that the dead has no rest until the body has been disposed of with the established ceremonies.

In the Tahitian Islands, the attainment of future life by the dead man depends on a proper burial, for which it is indispensable that a pig roasted whole and some vegetables should be placed in the grave with the corpse. After this has been done, the male head of the family, standing at the side of the grave, says, “I loved you in your life; I tried to cure you in your illness; but now that you are dead, take these presents with you, so that you can gain admittance to the dwellings of the gods. Do not return to persecute us.” The grave is then filled up and the dead is supposed to be at rest, unless, within a few days a cricket is heard near the grave. If so, the noise is attributed to the unhappy soul whereupon this lament is howled, “Oh, our brother! his soul has not been admitted into the company of the gods; he is hun-

gry; he is cold." Then additional offerings are made to him. If the body is not properly buried, the spirit comes back to torment the neglectful relatives, and to attack and kill any man found out of doors in the darkness.¹ These ideas are not unlike those of the Brahmins who teach that when the sacrifices to the deceased are not made properly by the descendants, the ancestors lose their places in the higher sphere and must be born again on earth.² The Greeks also considered the conventional funeral rites indispensable for the repose of the souls of the dead.

It is assumed that the excarnated spirits are pleased with such gifts and honors as are paid to chiefs, and these are therefore rendered with the expectation of reward by direct divine favor, including protection against material and immaterial enemies. In many cases the adoration is suggested by sincere affection for the dead relative or chief, but is accompanied by a confident expectation of positive reward or of negative exemption from evil. At the grave of his ancestor, the New Caledonian prays, "Compassionate father, here is some food; be kind to us on account of it."³ When he sacrifices an ox to his ancestors, the Zulu prays, "Ye spirits of my people, here is your bullock; here is your food. Bless me with health and comfort. Father bless and protect me. Grandfather bless and protect me." He names the ancestors from whom he expects favors.⁴

In many tribes the fear of the disembodied souls is accompanied by a careful avoidance of every mention of their names. They are too august to be referred to except by some paraphrase. They are offended by familiarity; and a direct or indirect call to them attracts their attention and brings them into dangerous proximity.

The tilling savage frequently addresses formal prayers to his divinities, beseeching them to stay away from his village, to consume the offerings placed on their graves, to give help in hunting, fishing, or war ; to avert disease, or to cure the sick. He does not pray that he shall be made better morally or that his soul shall be fitted for the companionship of noble spirits in a future life.

There are savage regions, where the man prays every morning when he rises from his bed, before eating or drinking ; and at the commencement of every important enterprise. The Natchez Indians prayed at least three times a day.⁵ At all temples and sacred places where priests reside as custodians, prayers are said every morning, and on the occasion of every sacrifice. In the Tahitian temples, the priests, at the commencement of their adorations, pray the gods to wake up and listen to the solicitations of their worshipers.

In Fiji, when the water is to be poured on the ava, in preparation for drinking, a herald cries out, "Prepare a libation to the chiefs who died on the water or on the land. Be gracious, ye lords, ye gods, that the rain may come."⁶ Before a Samoan nobleman takes his evening drink of ava, he pours out a few drops to the spirits, and prays, "Here is ava for you, O ye sea gods ; stay away from us."⁷ The following is a Huron prayer : "O thou god, who dwellest in this spot, accept this tobacco ; help us on our voyage ; save us from shipwreck ; defend us from our enemies ; give us a prosperous trade and bring us back safe to our village."

Before the god, as before the despotic chief, the man assumes an attitude of submission. Captives in war throw themselves flat upon the ground, and are taken with hands bound before the chief, and compelled to

kneel before him until he decides their fate; and so the worshiper lies down, or kneels with uplifted hands.⁸ In some tribes, the subject when entering the chief's house must wear no clothing under which a club can be concealed, and the worshiper must enter the temple with his head or his feet, and in some places with the upper part of his body bare.

The postures in prayer are far from uniform. The most singular is that attributed by rumor to the Dokos, for they have never been observed by an intelligent traveler in their own country. It is said that when they pray, they stand on their heads and rest their feet against a tree or rock.⁹

SEC. 130. *Totemism*.—Totemism, the worship, by a community, of a guardian spirit which makes its home in some natural object or phenomenon, is a feature of soul-worship. It has its origin, and reaches its highest development in the feminine clan, of which it is an essential element. It exists among the non-tilling Australians; it is prominent among the tilling Redmen. Most clans which have totems, have no regular system of clan worship. They recognize their totem as sacred; they do not kill, hurt, or eat it; they treat it in action and speech with reverence; but they pay no further attention to it.

The survivals of totemism in religion are found over a large part of the earth. In portions of Polynesia, the gods or guardian spirits are conceived as brutes.¹ Serpents were worshiped by the Aztecs, Quichuans, Caribs, ancient Egyptians and Babylonians, as they are by many Africans.²

The ancestral spirits sometimes pass into brutes which then become sacred. The Sumatrans believe that tigers are possessed by the souls of human beings.³ In Cala-

bar, crocodiles are supposed to enjoy a similar honor.⁴ In Tlascala, the souls of nobles enter into beautiful birds; those of the rabble into small quadrupeds and beetles.⁵ The Zulus say their ancestors have changed themselves into serpents.⁶ The Kamtschatkans pray to the wolves and bears;⁷ the Chippeways and Ostyaks beg pardon of a bear for killing him; and the Kaffirs, Dyaks, Sumatrans, Kukis, and some Arab tribes, after killing a large wild animal, propitiate its spirit by a feast in its honor.⁸ It is supposed, by many tribes, that sorcerers can convert themselves at will into carnivorous beasts.⁹

The Congoese and Damaras,¹⁰ and land Dyaks,¹¹ have sacred trees before which they make offerings of food and drink to the spirit occupants. The date palm was sacred to the Assyrians,¹² coca to the Quichuans,¹³ and soma to the ancient Hindoos and Persians, as ava is to the Polynesians, and tobacco to the Redmen east of the Mississippi.

SEC. 131. *Fetishism*.—A step higher than totemism in the growth of religion is fetishism, or devotion to a natural, or rudely-shaped artificial object, as the abode of the special guardian spirit of the devotee. The totem is the divinity of a clan; the fetish is that of an individual. The non-tilling Australians, Tasmanians, and Lower Californians have risen to the conception of the former and not of the latter. The tilling Redmen have both. Among the latter every youth must select his fetish or "medicine" before he reaches his eighteenth year. He must go off into some place where he will probably see no human being, and there must stay, abstaining from all food and drink, until in a dream, he sees an animal or plant suitable for his fetish. Then he can return to his village and eat. So soon as possible he must obtain a

sample of his fetish, get it or part of it in a portable and durable form, attach it to a string, carry it round his neck, and never part with it. Its loss means disgrace and ruin to him. He must be faithful to it so long as he lives. He prays to it, makes offerings to it, and attributes to it all his success in life. If his fetish be an animal, he must not kill or hurt any of its species. In his religion, it is much more prominent than his totem.

The fetish of the negro is selected without fasting, dreaming, or long consideration, and may be changed repeatedly. In many cases it is a stone or shell selected because of something striking in its color or shape. It may be carried on the person, or kept in the hut. The worshiper decorates it, sets offerings before it, and prays to it; but his devotion is usually measured by his success. If he should be overtaken by misfortunes, he not unfrequently strips the ornaments from his fetish, curses it, defiles it, whips it, and throws it out as useless rubbish. Then he is ready to install another in its place.¹

If a negro has been very successful in some difficult enterprise, the result is attributed to the aid of a mighty fetish; if on the contrary he has failed ignominiously, people say he has a very weak fetish. When Captain Tuckey was exploring the lower Congo, a native chief told him that his fetish would kill anyone who shot at it; and thereupon the Englishman offered to shoot at it. This offer was accepted, but before the shot was fired, the chief withdrew his acceptance, for the reason that Tuckey had the more powerful fetish, and that the chief after his fetish had been defeated and discredited, would be attacked and plundered by his neighbors.

Some Redmen regard special trees as their fetishes,

decorate them with strips of bright cloth, hang pieces of meat as offerings on the boughs, and occasionally climb up into the branches and there sing songs of praise to the spirit.

Every guardian spirit, not ancestral, partakes of the nature of fetishism. When a Samoan child is to be born, the names of various gods are called out in succession at brief intervals, and the one last mentioned before the birth is the guardian.² In part of Mexico, under similar circumstances, the figures of various animals are drawn on the ground and rubbed out, and the one visible at the time of parturition is the patron divinity.³

Some tribes of Northern Asia have a form of fetishism known as shamanism, in which the spirits dwelling in natural objects are the friends or servants of shamans or fetishistic priests.⁴ Laymen cannot communicate directly with the invisible powers but must do so through the priests, who have an imposing ceremonial with which they gain the faith and tribute of the multitude.

It was under the influence of fetishism, that in the last century, the Norwegian peasants had a custom of bringing into the house any stone of remarkably handsome shape, and treating it as a fetish. They anointed it with butter, wet it with ale, and expected it to bring them luck in reward for their attention. Some of the Irish in our own century have had similar observances.⁵

All fetish worshipers distinctly understand that their devotions are paid to the spirit residing in the material object. The conception of the soul, as distinct from the body, is as clear to them as to any civilized theologian. Certain African tribes will not accept a fetish until a priest has consecrated it with his mummeries and thus introduced a divinity. In the conception of their sacred-

ness, such fetishes differ little from the amulets, worn in many Christian countries.

SEC. 132. *Ancestor Worship*.—After the masculine clan had been established, men began to pay their devotions to their male ancestors in the direct male line; and for a long period this ancestor worship was the most wide-spread and most prominent feature of religion. It is universal among tilling tribes with masculine descent;¹ it prevailed among the ancient Egyptians, Greeks, Romans, Teutons, Gauls,² and Persians, and it exists now among the Brahmins, Chinese, and Japanese. That it was known to the ancient Hebrews is implied by a verse in Deuteronomy, requiring the person, who makes an offering, to declare that it is not for the dead.³

With the recognition of the ancestor as the chief object of devotion, the spirit and the method of worship changed. Affection and confidence succeeded to doubt and fear; vagueness gave way to clearness in the conception of the divinity; and the domestic fire, the grave of the ancestor, the hut over his tomb, and the temple developed out of it, became the scenes of ceremonies that grew more elaborate and more imposing. The male of the family was the priest of the domestic worship. He represented not himself only, but also those who went before and those who had come or were to come after him. He recited prayers; he chanted hymns; he made offerings of food, drink, clothes, weapons, tools, flowers, and incense; he sacrificed beasts, slaves, and wives. The principal site of this worship is the kitchen hearth. The household fire is the favorite dwelling place of the ancestral spirits.⁴

It is a common practice to chant the praises of the deceased at his funeral,⁵ and in some tribes, the relatives

repair daily for weeks, to the grave at sunrise and sunset, to repeat their songs; or they repeat them whenever they pass near the grave, in the period of mourning.⁶ They also offer prayers there. The chief is regarded as the father of the village, clan, or tribe, and after his death everyone of his subjects can apply to his spirit for aid.⁷

In systematic ancestral worship, the divinity and the worshiper are always males. Women have no share in this religion. They must preserve and guard the fire, but they cannot offer acceptable sacrifices nor make potent prayers. The blood requisite for sacerdotal functions does not run in their veins. They live without divine communication; they are buried without ceremony.

SEC. 133. *Offerings*.—The spirits and gods to whom offerings are made, consume not the material substance but the spiritual essence. The food placed on the grave or in the temple is enjoyed by the resident spirit, just as a saddle of venison would be eaten by the warrior in whose tent it had been hung up. The dead have their homes, and their property rights. Food for the soul is placed near the corpse before or after burial, by the Polynesians, Micronesians, Melanesians, Brazilians, Karens, Redmen, and Africans. In most tribes, the provisions are supplied for only a day or two. The belief prevails that, after the spirit has become familiar with its new home, it can supply its wants with less effort than it could in the material life. But even after it can obtain sufficient food by its own exertion, it likes to be invited to an occasional feast by its surviving relatives. The Tahitians touch the lips of the corpse several times daily with food. The Mosquito widow carries food to the grave of her husband, at intervals for a year.¹ The Ka-

rens of Northern Bengal, and the Bareas of Eastern Africa have an annual feast at which food is set out for the dead.² The ancient Persians, Gauls, and Romans, the Aztecs and Quichuans had, and the Chinese now have, this custom. The food should be of the most savory kind, and in amount equal to the quantity that the person ate at a meal when alive. Fermented drinks and narcotics are also needed by the spirits, and are supplied to them. In Bonny, where the corpse is buried under the hut, which the family continues to occupy, the man must not start out in the morning without pouring a libation of beer down a pipe that leads into the coffin.³ As the spirit eats only the essence of the offering, the preservation of the material substance of the food is not necessary; and some tribes after presenting their offering at the grave, burn it there. Thus the Nootka Indians burn salmon and venison at the grave.⁴ Other tribes, after giving the spirits a chance to enjoy the essence of the offering, themselves eat the substance.

Offerings of food to the spirits are often made at the commencement of a meal. A bit of meat is thrown into the fire or on the ground, and some drops of any favorite beverage are poured out, with a reverent air, and with or without an invocation to the spirits. In Samoa, it is sufficient to wave the cup towards the heavens, thus giving the spirits the first opportunity to drink.⁵

As the soul needs food in its new home, so it needs clothes, weapons, ornaments, and servants. The Patagonians open the graves once a year to put in new garments for the dead.⁶ As the food may be burned to liberate its essence, so the weapon or jug may be broken,⁷ or the clothes may be torn at the grave; but they must be in a good condition when taken there.

SEC. 134. *Sacrifices*.—Since the body of the man must die before his soul can establish itself in the world of spirits, so the dog or horse that is to accompany him and serve him there, must be slain. There are various methods of despatching the animals, the most common being those used when slaughtering for the table. The Moluches tie a horse to a stake at the grave and let him starve to death. The pig destined to feed the Vatéan spirit is tied to the wrist of the corpse and then killed, the tying being intended to show ownership and to prevent other spirits from claiming the food.¹ In Greenland, a dog's head is buried with the child to serve as a guide and companion for the little one in crossing the dark place on the way to the world of light.² The Todas kill all a man's cattle at his burial.³ Among the tribes which sacrifice animals at the grave, are the Patagonians,⁴ Araucans,⁵ Charruas,⁶ Mbayas,⁷ Abipones, Comanches, Pawnees, Chinooks, Walla Wallas, Kaffirs, Fipas, Wagogos, Yakoots, and Kirghiz. This custom continued long after man had risen above savagism, and existed among the barbarous Gauls, Teutons, and Aztecs. In 1781, a horse was slain at a burial in Germany. The sacrifice of animals and slaves has its survival in the Japanese custom of putting little images of beasts and men on the graves, and in the Chinese custom of burning paper figures of such sacrifices.

Blood being regarded as intimately associated with the life, is the most precious part of the sacrifice, and is considered especially acceptable to the spirits. It must be put upon the altar, or smeared over it, or over the faces and especially the mouths of the idols.

Among savages, as among people in more advanced culture, the meat offered in sacrifice, may afterwards be

eaten by men. If the sacrifice be made in a temple, custom determines how much belongs to the worshiper and how much to the priest, and each may carry away and eat or sell his share. The temple becomes a slaughter house; the priests are dealers in butcher's meat. The givers of liberal gifts are treated as persons secure of divine favor; those who are unable or unwilling to make sacrifices are represented as proper objects of divine wrath.

SEC. 135. *Human Sacrifices*.—The same reasons which suggested the sacrifice of animals at graves, led to the sacrifice of human beings there. This custom has existed in recent or modern times among the Iddahs,¹ Bakutos,² Wanyoros,³ Bafiotés,⁴ Congoese,⁵ Yorubas,⁶ Ashantees, Dahomans,⁷ Kaffirs,⁸ Dakotas, Chinooks, Guaranis, Fijians, New Caledonians, Aneitums, Tongans, Hawaiians, and Tahitians. Custom in Unyoro requires that with the deceased head chief, several hundred persons, after their legs and arms have been broken, shall be buried alive.⁹ Not many generations have elapsed since ten slave girls were slain and put into the grave with the corpse of the wife of a Kaffir chief. The ceremony of sacrificing servants to accompany a deceased head chief in Bambarra, is thus described by Cameron :¹⁰ “The first proceeding is to divert the course of a stream, and in its bed to dig an enormous pit, the bottom of which is then covered with living women. At one end a woman is placed on her hands and knees, and upon her back the dead chief, covered with his beads and other treasures, is seated, being supported on either side by one of his wives, while his second wife sits at his feet. The earth is then shoveled in on them, and all the women are buried alive with the exception of the second

wife. To her, custom is more merciful than to her companions, and grants her the privilege of being killed before the huge grave is filled in. This being completed, a number of male slaves, sometimes forty or fifty are slaughtered and their blood poured over the grave; after which the river is allowed to resume its course. Stories are rife that no fewer than a hundred women were buried alive with Bambarré Kasongo's father." In the lower part of the valley of the Columbia river, when the daughter of a chief dies, the corpse is put in a canoe on a high rock or island, and tied to her, and bound hand and foot, is a live slave girl, who is strangled on the third day.

In many tribes, public opinion requires the wives and favorite slaves to accompany the husband and master in death; and many of the victims accept the sacrifice willingly, partly, perhaps, because if they could escape, they would become outcasts. From those provinces of Hindostan, where suttee was prohibited, in this century, widows of Brahmins were for a time in the habit of accompanying the corpses of their husbands into other provinces, where they could be burned. The fear of life-long disgrace may control some, while others count confidently on relative happiness in the world of spirits as compensation for their obedience to the sacerdotal commands in this material sphere. The custom of slaying wives on the grave of the husband is common among savage tribes that have risen above the feminine clan.

Human sacrifices in religious worship existed among the Polynesians, Micronesians, and Melanesians generally, among many African, and some American, Malaysian, and Hindoo savages, as well as among the barbarous Aztecs, Quichuans, Egyptians, Phœnicians, Jews, Persians, Gauls, and Teutons, and the civilized ancient

Greeks and Romans. When the Polynesians held great festivities and sought to make themselves especially dear to the gods, and when in times of serious public disaster, they wished to give solemnity to the general lamentation and to propitiate the offended divinities, men were slain in the temples. Human sacrifices to the gods of agriculture are or have been made by the Khonds,¹¹ Nagas,¹² Lagos,¹³ Congoese,¹⁴ and Pawnees. The tribe last named sacrificed a captive Dakota girl in 1837. After they had shot many arrows into her body, and while she was still alive, they cut pieces of flesh from her body and squeezed out the blood on the newly-planted hills of maize.¹⁵ Since the time when the Khonds have been forbidden to propitiate the gods by human sacrifices, they make cakes of dough or clay in the shape of men, and cut off their heads.¹⁶ A human sacrifice is offered by the Yorubas when they start out on a military expedition,¹⁷ by the Kimbaras when they install a new chief,¹⁸ by the Wanika when they admit a party of young men into the rank of the warriors,¹⁹ and by the Fijians when they launch a canoe or when they congratulate a young prince upon reaching the age of manhood.²⁰ In 1861, B. Seeman persuaded the head chief of Fiji to spare about five hundred inhabitants of a rebellious village, whose sacrifice had been ordered, for the purpose of giving lustre to a festival in honor of the arrival of his eldest son at his majority. Ancient custom had provided that at the most important moment of the ceremony, the prince should stand on the breast of a prostrate living slave, lying on the apex of a pyramid of corpses of men slain for the occasion.²¹ The most extensive recent human sacrifices have been those of Dahomey and Ashantee, in each of which countries, the annual number of victims was not less than two

hundred, and according to some authorities, much larger. In the former country, the sacrifices are made in considerable numbers at a few festivals and especially on the anniversary of the death of the last king, when a feast of blood is set out for the souls of the royal family. In Ashantee, a human victim is sacrificed on each of seven days out of eight so that there are about three hundred and twenty in a year. In Florida the first born son was sacrificed to the sun, and children were sacrificed to the spirits in New England, Virginia, and Dakota.²² At Benin, a young woman is lashed to a platform on a tall tree to be eaten by vultures; and the Bonny fishermen tie a human victim to a stake, between low and high tide, so that when the water rises, a shark may come in and eat him.²³ The gods occupy the bodies of these vultures and sharks. Among the tribes which have continued to sacrifice human victims until recent times in Hindostan are the Oryssas.²⁴

Human sacrifices in temples differ little in motive, from the slaughter of wives, slaves, and friends at the grave of the chiefs. The two customs are intimately associated. One provides food and the other service, for the gods. Both are intended to conciliate supernatural powers. The original suggestion of sacrifice of human beings is to be found in cannibalism. That meat, which is most costly and therefore most delightful to warriors, is demanded by the gods. They, like their worshipers, delight in the destruction of the souls of their enemies.

Since we know that human sacrifice in religion is a consequence of reputable cannibalism in private life, the question arises why the effect did not cease with its original cause. It was because, in the meantime, other influences had become potent. Change could operate

much more quickly in social life than in religion. Many centuries after the advance of culture had driven cannibalism into desuetude and discredit in tropical Polynesia, Carthage, Phœnicia, Persia, Greece, Rome, Gaul and Germany, Mexico and Peru, so many centuries that the tradition of the ancient custom had been forgotten, and the people did not suppose that their ancestors had ever feasted on cooked men, the custom of human sacrifices continued in those countries and in most of them on an extensive scale. The ecclesiastical custom remained the same but the explanation of it was different. In the earlier ages, the reason for the sacrifice was that as the spirits and gods were hungry and as human flesh was a luxury, so men must be sacrificed in the temples. But when men learned to look upon feasts of human flesh with disgust and horror, that explanation would no longer serve. The priests however, as a class, would not admit that they or their predecessors in office had belied the gods. They understood that their power and profit depended, to a large extent, on their success in convincing the multitude that their gods had not changed in character, and that their corporation had always acted with divine authority. With popular credulity and governmental power to aid them they found no great difficulty in this task. Acting on this policy, they asserted that the gods never wanted to be fed on human flesh or blood; that the doctrine of giving such food never was a material part of their ecclesiastical system; and that the only purpose of the custom was to fill the people with the ideas that the gods were entitled to the most precious of all sacrifices, and that it was the duty of the worshipers to make the most trying of all penances with human life. When the priest dipped his finger into the blood of the

slaughtered man and put it into his mouth that was a penance for him.²⁵

In New Zealand and Fiji, the most precious morsel in the cannibal feast was the left eye, because it was supposed to be the seat of the victim's soul, which would unite with and strengthen that of the eater. It was therefore given to the person highest in rank at the feast. In Tahiti and Hawaii, men had ceased to eat human flesh when Cook was there, but after a man was sacrificed in a temple, his left eye was handed to the head chief, who made a motion as if he would eat it and then gave it back to the priest. The meaning of this ceremony had been forgotten by the people, and the Tahitian, who went with Cook to New Zealand, was struck with horror when he saw the Maoris there eat their fellow-men. He did not know that his ancestors had been cannibals.

Another class of human victims may be mentioned here, those sacrificed to watch or defend buildings, towns, or boats. In many tribes of Africa, Melanesia, and Malaysia, custom requires that under every post of a town gate or of a chief's dwelling, a slave, dead or alive, shall be buried. In portions of Melanesia, a war canoe is not fit for use until it has been consecrated by the slaughter of a slave. He may be slain so that his blood shall flow over and wash its upper surface, or he may be used as a roller and crushed to death while it is being launched. The spirit of the victim becomes the guardian of the structure.²⁶

SEC. 136. *Gods*.—The first divinity was a disembodied soul, the second a male ancestor in the direct male line, the third a deceased chief. When political organization became compact, the able despotic ruler was regarded in some sense as the father of the tribe. If he

had given a superior military training to his warriors, and had increased the power and wealth of his tribe, he would be looked upon as divine in his character. He would receive the adoration of his subjects. Savages worship easily. From man to god is a small step for them. It is a step that every brave warrior takes when he dies.

The son and successor of a chief, who had been a great military leader, would perceive that the public worship of his father by the whole community, under the superintendence of an organized priesthood, dependent on him for support, and scattered through the country so as to come in contact with all the people, would add greatly to his political power. It would then be his policy to strengthen this priesthood and to weaken every other. Under such influences, tribal worships and divinities gradually encroached upon and superseded the household religions. In some conquering tribe, a priest employed in the worship of a chief long dead, asserted that his divinity had always been a celestial spirit. This idea was accepted by the people because it was more worthy of their dignity than devotion to a disembodied human soul. Thus another step was taken in the development of religion.

In war, the gods are interested as well as the men. If a chief carries his victories far, and understands well the interest of his dynasty, he takes care that his power shall be fortified by sacerdotal influence. A good example, of the union of Church and State in savagism, is found in the history of the Hawaiian group, every island of which had at least one independent chief and independent religion, when Kamehameha I. began his conquering career in the last century. After his royal authority

had been established over the entire group, in 1795, he raised his family god Tairi to the position of supreme national divinity, moved all the idols of the local divinities to Tairi's temple, compelled all the priests to devote themselves to Tairi's worship, and required them to act as part of his police.¹

The highest conception of divinity, found among savages, is that of the Tahitians. They have a supreme deity who created the universe. He also created an immense number of inferior gods, including one for every island, mountain, valley, planet, star, meteorological phenomenon, occupation, virtue, vice and crime. He created time. The year is his daughter; her children are months, and her grandchildren days. The sea is the sweat that poured from him while he was making the world. The sun is his left eye and the seat of his soul. He pays no attention to praise or prayer. He leaves the management of human affairs to his subordinates.

The spirits of savagism rejoice in the victories and conquests of their worshipers, and the slaughter of their enemies. The excitement of battle is rapturous to them as it was to the divinities of ancient Egypt and Assyria, of Greece and Rome, of Gaul and Germany. The sight of the flowing blood gives delight to the gods of Fiji, and to those of Tahiti.² After he has taken a scalp, the Redman celebrates his success by a dance, in which he exhibits his trophy, and thanks his fetish for granting him success.

In cannibal tribes, spirits or gods, like living men, delight in feasting on human flesh, and demand frequent human sacrifices. They drink the blood of the victims; their idols must be smeared over the mouth and face

with the fresh gore. One of the gods of Fiji is called Brain-eater. The priests bless the cannibal feasts, participate in them and demand them as necessary to do honor to the gods.

In many tribes, the names of the gods are sacred and are carefully concealed from aliens, slaves, commoners, women, and children—that is from all who have no right to participate in the divine worship. It is imagined that he who does not call out the true name of the god cannot get his attention or favor, and cannot make an acceptable offering; and that he, who has the true name, can get almost any favor. The Romans treated the revelation of the name of their national god, to an enemy, as a great crime, and they had special rituals for enticing the divinity of a hostile city to come over to them, and for installing the god of a conquered city in their pantheon.

Under ordinary circumstances, the mention of the name of Yahveh was forbidden to the Jews, that of Osiris to the ancient Egyptians, and that of Brahm to the Hindoos. Many Arabs imagine that Allah is a mere title of the diety, that his true name is known to none save a few devout and learned men; and then whenever it is used in prayer, the favor solicited is always granted immediately.

The change from the worship of the ancestors to that of the gods was not abrupt. The two religions existed side by side, for many ages in harmony. Between the household divinities and the tribal divinities, there was no incompatibility and scarcely any rivalry. It was not until men rose above savagism, that priests of tribal gods obtained influence enough to suppress the adoration of the ancestral gods.

The savage is not a monotheist. Unless in rarely exceptional cases, he has no conception of a creator and governor of the world, of a great first cause whose effect is the universe with all its laws and forces and material parts. He has no idea that moral quality belongs to divine nature. He knows nothing of a deity who looks with equal favor on all mankind. He may learn the phrase "Great Spirit," from civilized men but he continues to worship a disembodied soul, a fetish or tribal guardian spirit, and to believe in an immense number of divinities.

SEC. 137. *Idolatry*.—Rudiments of idolatry make their appearance in the feminine clan, if not earlier. The Mandan widow, who has had a good husband, saves his skull, offers food to it and talks to it, as if his spirit were there. The Hawaiians, Caribs and Andamanese keep the skulls of their dead with reverent care.¹ The New Caledonians cherish them and make offerings to them.² The Yucatanese made idols in which the skull of an ancestor occupied the place of the head. The Aztecs mixed the ashes of their noble with the clay of which they made his image or statue.³ While the body of the Congoese chief is in the hands of the embalmers, a wooden image of him is set up in the palace, and offerings of food and drink are placed before it every day.⁴ After the burial of an Abyssinian, an image of him is used in the mourning ceremonies.⁵ In portions of Melanesia, offerings are made to a representative idol on the grave.⁶ Rude images of the dead are placed on the graves of the Araucans, Maoris and some Redmen.⁷ The Ostyak has a wooden image of his deceased father in his hut, offers food to it and worships it.⁸ The Ostyak priest keeps the images of his male ancestors, in the male line, for several generations and,

besides making offerings to them, induces others to do so.⁹ When a Samoyed leaves home, the domestic idol is turned to face the direction of his journey and thus look after and guard him.¹⁰ The Yoruban mother, who has lost a child, carries a wooden image of it, and offers food to it whenever she eats.¹¹ The image of the dead chief is worshiped in Hawaii.¹² As a general rule tribes which worship ancestors have figures representing them.

Idolatry does not appear in the lowest tribes, but it is a highly effective feature of ecclesiasticism among advanced savages. The sight of the god in human form, the pompous ceremonial worship before it, the show of devotion to it by all in authority, and the prosperity and power of its chief worshipers, impress the popular credulity with the utmost confidence in the existence and power of the divinity and in the genuineness of the sacerdotal commission. The idolaters are proud of their idolatry, and despise tribes which have no idols. Although the Samoans have guardian spirits, and worship them every day with prayers and offerings, yet because they have no images of their gods, the idolatrous Polynesians contemptuously call them "the godless Samoans."¹³ In Tahiti some of the idols are rude billets of wood, decorated with leaves and red feathers; others are hollow logs filled with red feathers.

The idolater understands as well as the fetish worshiper, or even more clearly, that the material portion of the idol is not divine.¹⁴ Among the higher savages, the idol must always be consecrated, that is, the divinity must be persuaded to make his home in it. Such installation ceremonies are indispensable to the idol in Tahiti, Hawaii, Tonga, and Fiji.¹⁵ The religious ideas connected with the use of images of sacred characters in

ecclesiastical affairs, are substantially the same in high savagism, in barbarism and in civilization. All distinctions, to show that one form of devotion to images is idolatrous and another is not, are mere fictions based on the necessity of finding excuses for adherence to the old forms of a discredited superstition.

By black, yellow, and white men, in savagism, barbarism, and civilization, wherever ecclesiastical images are used, there the idols are dressed and decorated, and lamps are burned, offerings are made and prayers are said before them in the same spirit and with similar ideas. Everywhere among the worshipers, one image has the repute of being much more powerful than another. The Chinooks determine the relative values by knocking the idols together violently; the one that breaks first is the home of the weaker god.¹⁶

Everywhere the idols are blessed in prosperity, and in adversity are cursed, threatened, despoiled, defiled, whipped, broken, and burned, or thrown away. It is so in Africa, Polynesia, Siberia, China, and Italy. Speaking of some Siberian tribes, Pallas says: "Notwithstanding the veneration and respect which they have for their idols, the latter fare badly when adversity overtakes an Ostyak, if prosperity does not soon return to him. He throws his idol on the ground, beats it, curses it, and breaks it into fragments. Such punishments occur frequently; and such outbursts of wrath are observed among all the idolatrous tribes of Siberia."¹⁷

SEC. 138. *Divine Intercourse*.—The lives of savages generally are full of devotional feeling. A prayer or a sacrifice, to secure divine favor or to ward off wrath, precedes every important act. They imagine themselves constantly surrounded by watchful, jealous and punctil-

ious divinities, always ready to give them signals of danger, to reward attention and devotion, and to punish neglect or deliberate impiety. Their penalties make up all the evil, and their rewards much of the good of life. To the savage whose fetish is carried on his person or whose guardian spirit is domiciled in his hut; who makes offerings of food and drink to it at every meal; who, at the beginning of every day and enterprise, looks for the omens indicating the divine advice as to the course he shall pursue; whose soul frequently, in dreams leaves his body to associate with excarnated spirits; who puts provisions, clothing, and arms on the graves of his dead relatives,—to the savage who thinks and acts thus, the civilized man without fetish, guardian divinity, omen, spirit intercourse, or offerings at meals or graves, seems a person whose life has no sacred element; a person profane, groveling, and godless.

In times of adversity, and especially of general adversity, the devotion of the savage increases. Misfortunes are regarded as indications of divine wrath. The temples, in tribes which have advanced far enough to have such structures, are rebuilt or readorned; costly sacrifices are offered; and long processions march to the altars, or even crawl on hands and knees, dragging heavy stones.¹ Among savages as among civilized people the priests reap their richest harvest in times of misery.

Referring to the Polynesians, Gerland says: "Although their moral feeling was slightly developed, their timorous religious sensitiveness had a controlling influence in their private and public life; for their simplest actions were affected and guided by considerations relating to a divine power. For them, religion was the most important element of existence."²

Writing of the Arabs in the Soudan, S. W. Baker³ tells us that, "The conversation of the Arabs is in the exact style of the Old Testament. The name of God is coupled with every trifling incident in life, and they believe in the continual action of divine, special intercourse. Should a famine affect the country, it is expressed in the stern language of the Bible, 'The Lord has sent a grievous famine upon the land,' or, 'The Lord called for a famine and it came upon the land.' Should their cattle fall sick, it is considered to be an affliction by divine command; or should the flocks prosper and multiply particularly during one season, the prosperity is attributed to special interference. Nothing can happen in the usual routine of daily life, without a direct connection with the hand of God, in the Arab's belief.

"This striking similarity to the description of the Old Testament is exceedingly interesting to a traveler when residing among these curious and original people. With the Bible in one hand, and these unchanged tribes before their eyes, there is a thrilling illustration of the sacred record; the past becomes present; the veil of three thousand years is raised, and the living picture is a witness to the exactness of the historical description. At the same time, there is a light thrown upon many obscure passages in the Old Testament, by the experience of the present customs and figures of speech of the Arabs, which are precisely those which were practiced at the periods described. I do not attempt to enter upon a theological treatise, therefore it is unnecessary to allude specially to these particular points. The sudden and desolating arrival of a flight of locusts, the plague or any other unforeseen calamity, is attributed to the anger of God, and is believed to be the infliction of pun-

ishment upon the people thus visited, precisely as the plagues of Egypt were specially inflicted upon Pharaoh and the Egyptians. Should the present history of the country be written by an Arab scribe, the style of the description would be purely that of the Old Testament, and the various calamities or the good fortunes that have in the course of nature, befallen both the tribes and individuals, would be recounted either as special visitations of divine wrath or blessings for good deeds performed. If in a dream, a particular course of action is suggested, the Arab believes the God has spoken and directed him. The Arab scribe or historian would describe the event as 'the voice of the Lord,' [Kallam el Allah], having spoken unto the person; or that 'God appeared to him in a dream' and 'said.' Thus, much allowance would be necessary on the part of a European reader for the figurative ideas and expressions of the people."

SEC. 139. *Worship*.—Ecclesiastical ceremonies grow with theological conceptions. The Australian is surrounded by malignant spirits who are conceived vaguely as taking no special interest in any individual; and he rarely performs any act of worship. He has no guardian divinity, or fetish; and although he has a clan totem, he pays regard to it only by abstaining from injuring or eating it. The Redman, in the tilling culturestep, has his personal fetish (selected in a dream) which he carries with him always, to which he frequently prays and makes offerings; and besides he has certain public ceremonies of adoration paid to his totem, and to the spirits generally. In the advanced masculine clan, the savage drops his totem and the fetish spirit selected in a dream. The chief objects of his worship now are his male ancestors in the direct male line. His grandfather, his great-grand-

father, and if dead, his father. These ancestors look down on him with favor, if he pay popular devotion to them; and he looks up to them with confidence. He worships them regularly and publicly; in their service he employs priests. Under the dominion of a despotic chief, the savage rises to the idea of a tribal god, who never was human, and who must be worshiped with elaborate ceremonies and sacrifices. The ancestral spirits are however, for the advanced savage, always the main objects of his worship.

In the development of savage worship, the form advances more than the motive, but the latter changes from predominant fear to affection. The nameless malignant spirit of the Australian is regarded with terror; the guardian spirit of the Redman with devotion; the ancestral spirit of the Kaffir or Tahitian with confidence and affection; and the tribal god of the Tahitian or Hawaiian with awe, as an exalted being who cares little for any men save the highest chiefs.

The ceremonies of worship become complex as the priests gain wealth, influence and education. The ecclesiastical profession differentiates itself into numerous branches including those of diviners, singers, instrumental musicians, sacrificers, custodians of sacred animals, and custodians and builders of temples. The ecclesiastical ceremonies become complex and pompous, but all the main ideas of worship remain the same as when the highest divinity known was a human soul.

The following Tahitian prayer shows the feeling of a worshiper, in the most advanced phase of modern savagism, towards his divinity: "Save me, save me, O my God, through this night in which the evil spirits have power. Watch over me, O my God! O my Lord! Protect me

from sorcery, from sudden death, from the plots and curses and secret trickery of my enemies, and from disputes about land boundaries. Grant that peace shall prevail round me and mine. Save me from the evil spirit who delights in terrifying mankind, whose hair looks like frightful bristles. Grant that I and my soul shall live and rest in quiet through this night, O my God!"¹

The sun is regarded by nearly all savages as the home of spirits, and devotion is paid to it and to fire as its representative. This worship of the sources of heat and light are however in most tribes, not connected with any very definite ideas. It is little more than empty ceremony based on ancient custom. At the beginning of every meal, the Moqui, Zuni and Pueblo, and the warrior of many ruder tribes in North America, throws a bit of food into the fire as an offering.² The Chippeways,³ Pottawatamies⁴ and Natchez⁵ keep sacred fires burning continually, as do the Congoese,⁶ Damaras and the Dahomans.⁷ The name Cherokee means fire; the Muscogees say that fire is their ancestor; and the Chickasaws, using a phrase of recent origin, tell us that the Great Spirit shows himself in fire.⁸ The Creeks, Cherokees, Natchez, Knistenos and some other tribes of Redmen have a harvest festival at which the old fires are quenched, the huts are cleaned, the people undergo ceremonies of purification, including the use of bathing, fasting, emetics and purges; and when the sins of the people are washed away, and all offenses save murder are forgiven, new fires are solemnly kindled and the first fruits of the new crop are thrown into them.⁹

Besides having their sacred fires, and paying worship to the sun, the Redmen regard smoking as a religious ceremony, make it a part of their most solemn festivals,

and have a sacred regard for the pipe. In many tribes, the warrior has the exclusive privilege of smoking, and before beginning he looks up to the sky, down to the earth and turns to the four cardinal points as if calling the attention of the spirits, in every direction, to his piety.

Since the gods, on account of their remoteness, their higher nature and their less intimate association with human life and local affairs, receive less adoration than do the souls of men, so the sun is not worshiped as much as fire; and yet it is or has been adored by many tribes in all the larger divisions of the globe. Waitz goes so far as to say that it is impossible to be a heathen without worshipping the sun.¹⁰ The high chief of the Natchez saluted the sun every morning, when it rose, with three long howls, blew tobacco smoke towards it and made obeisance to it.¹¹ Though nominally Mohammedans, the Bedouins pay adoration to the sun.¹²

Subordinate chiefs must pay periodical visits to their superior with tribute, assurances of fidelity and demonstrations of submissiveness; and with the same motive, after the savage has a temple, he must from time to time take offerings and pay adoration there to his god. At the outset, says Spencer, "presents to the dead differ from presents to the living neither in meaning nor motive." If a noble, or chief, with numerous adherents or a large party go to a distant temple, for the purpose of worship, the journey becomes a pilgrimage. In some tribes as soon as they reach the sacred place, they march round it three times "with the sun," that is with the right side nearest to the shrine, singing songs in praise of the divinity.¹³

Since morality is not a part of savage religion, ceremonial observances have a great relative prominence.

The chief offenses in the eyes of the gods, are violations of sacerdotal orders.¹⁴ Every disaster is considered a divine retribution for some such offense. Among the Zulus, disease is often attributed by the priest, to the resentful persecution of a deceased ancestor who has not been properly worshiped by the afflicted descendant. The remedy prescribed is that the invalid must sing songs of praise and offer sacrifices to the offended spirit, until health returns.

Nearly all savage tribes have regularly recurring sacred festivals, and as a general rule, the more advanced the culture, the more frequent, the longer and the more imposing are they. At the beginning of their year, the Tahitians have a festival called the renewal of the gods, when the temples are cleaned and adorned; the idols are exposed to the sun, oiled, perfumed, decorated, carried about in a procession with songs and instrumental music, and replaced; after which all the nobles sit down to a public feast. The beginning of the fishing season and of the harvest are also celebrated with much ceremony; and the first fish and first fruit are offered to the gods in the temple. At the end of the year, farewell is said to the gods and they are begged to return with the new year. A feast is also set out by relatives for the spirits of all who have died within the preceding twelve-month.¹⁵

SEC. 140. *Priests*.—Whoever mediates or pretends to mediate, between his fellow-men and a supernatural being, is a priest, no matter how crude his faith, or how absurd his ceremonies may appear to the civilized observer.¹ The professional expeller of evil spirits, the rain-maker, the discoverer of criminals by revelation, the sorcerer who causes disease or death by incantation, or saves

from the incantation of others, the diviner who foretells the results of projected enterprisers by omens or spirit communications, the wizard who calls the dead from their graves, the seer who converses with the ever-present spirits, the prophet always authorized to explain the wishes of the gods to people and rulers, and the ecclesiastic who conducts the public worship of his tribe on important occasions,—all these are alike priests, as all these acts are parts of sacerdotal business, and as all the theories on which those acts are based are religious. Wherever there are priests, they make a profit by their business.²

In the lower tribes, including all which have no hereditary chiefs, any man may make a profession of priestcraft, in any of its departments. If successful in gaining the confidence of the community, his social position becomes honorable, and his life relatively easy; if unsuccessful, he falls back into the multitude. The profit of his sacerdotal practice depends, among the Redmen and Africans, upon the might of his fetish. He who has a large professional income for several years in consequence of some lucky hit, may be thrown into discredit by some notable failure, or by the trickery of a more cunning or more plausible rival.

In certain American tribes, as for instance among the Dakotas and Cheyennes, the head war chief must be a priest; and the combination of political with ecclesiastical office, gives him much more influence than is possessed by other chiefs in the same region.

As a general rule among savage tribes, as well as among barbarous and civilized nations, democratic political organizations are accompanied by weak ecclesiastical systems; and despotic governments, by powerful sac-

erdotal systems. We expect to find hereditary priests with hereditary nobles; and aristocratic arrogance is as great among the sacerdotal as among the military chiefs.

Tribes with despotic government and hereditary nobility usually have what may be called an established church in which the ecclesiastics are of noble blood. Deriving a comfortable or luxurious support from their office, they arrange its duties in a routine, which a man of ordinary capacity may learn without great effort. Having no monopoly or ready control of convulsive and hysterical sensitiveness, they treat it as an inferior gift or a sacrilegious imposture and, resenting the competition of the sensitive sorcerers, seers and prophets, persecute them as agents of evil spirits.

Every Maori warrior is also a priest, and in Samoa, there is no priesthood supported entirely by ecclesiastical revenue; but in the other Polynesian groups, the sacerdotal profession is the exclusive privilege of a hereditary class of nobles and is a source of much power and profit to its followers. In Tahiti, the office of high priest is hereditary; in Tonga, the high priest overshadows the political ruler, as it does in Congo. In Obbo, Loango,³ part of Madagascar,⁴ Ebo, Blantyre, and Tanna,⁵ the office of high priest belongs to the chief, and among the Khonds and Ashantees, to the family of the chief.⁶

In many tribes a priest gains little influence and occupation in his profession, unless it is known that he has undergone an initiation, which may include fasting and bleeding as among the Arowaks,⁷ or fasting and laceration as among the Chippeways,⁸ or fasting and exposure to much danger in handling poisonous serpents, as in portions of Africa.

Save in a few tribes, the sacerdotal office belongs ex-

clusively to men. Among the exceptions are the Fantis, Whydahs and Popos,⁹ who have some women priests, and several Dyak tribes, all whose priests are women. In certain Dyak tribes the men are priests, but they must wear the dress of women.¹⁰ There is a similar priesthood in Alaska. Among the Dahomans and Damaras a woman belonging to the family of the head chief may become a priest, and among the Blantyre negroes, during the absence of the chief, who is also high priest, his wife conducts the worship.¹¹

The worship of the ancestor belongs to the head of the household and is an obstacle to the rise of a powerful priesthood. As the sacerdotal profession rises, the domestic religion usually declines. Perhaps the weakest clergy among tilling savages with despotic chiefs is found in New Zealand, where the ancestral divinities are adored with great fervor and where the tribal gods are relatively insignificant. Some writers have said that there are no priests among the Maoris; there is no such hereditary sacerdotal class as there is in Tahiti and Hawaii, but there are men who make a study of the ancient myths, songs, and rituals.¹² In some Kaffir tribes there are numerous gradations in the sacerdotal profession and every priest is expected to serve in every lower grade successively before admission to a higher one. The initiatory ceremonies include fasting, solitary contemplation, dancing and singing.¹³

Among the Tahitians, Marquesans and some other Polynesian and some African tribes, the high priest bears the same title as the god, and is treated by his subordinates as if he were one.¹⁴ The same honors are paid to the priest as to the image of the divinity. Incense is burned, sacrifices are made, and prayers are addressed to him.

SEC. 141. *Sensitives, etc.*—In low savagism, the priests generally, or at least those who have the highest standing in their profession, are persons of peculiar nervous sensitiveness. “Persons whose constitutional unsoundness induces morbid manifestations are indeed marked out by nature to become seers and sorcerers.”¹ Among the Zulus, men of “very sensitive families” become priests.² “When first the spirit of prophecy manifests itself in a Kaffir, he begins by losing all his interest in the events of everyday life. He becomes depressed in mind, prefers solitude to company, often has fainting fits, and what is most extraordinary of all, loses his appetite. He is visited by dreams of an extraordinary character, mainly relating to serpents, lions, hyenas, leopards, and other wild beasts. Day by day he becomes more possessed, until the perturbations of his spirit manifest themselves openly. In this stage of his novitiate, the future prophet utters terrible yells, leaps here and there with astonishing vigor, and runs about at full speed, leaping and shrieking all the time. When thus excited, he will dart into the bush, catch snakes (which an ordinary Kaffir will not touch), tie them around his neck, boldly fling himself into the water and perform all kinds of insane feats.”³ When a Tongan priest is inspired with the spirit of prophecy he becomes greatly excited, and sometimes dies with the agitation.⁴ Convulsions and actions similar to those of insane persons, are often observed in the priests of Siberia, Patagonia, the Bhil country,⁵ Fiji, Hawaii and Tahiti,⁶ and they are brought on purposely by fasting, mutilations, sweat baths, solitude, drugs,⁷ narcotics and alcoholic liquors.⁸ The ancient Scythian priests inhaled the smoke of burning hemp. Savages generally regard every phase of intoxication, delirium, convulsion

and wild or furious dementia as a spiritual possession. Lunacy and priestcraft are considered to be nearly related. The greater the resemblance in his conduct and appearance to that of a lunatic, the greater the confidence commanded by the priest. His careless dress, his lean form, his glaring eyes, and the irregular and fidgety movements of his facial muscles and of his limbs, all heighten his repute for sanctity, and therefore his influence and his revenue. The sacerdotal profession among low savages, is not regarded as one of luxury or ease in its earlier years. Its votary must begin by subjecting himself to severe trials of various kinds, as a means of securing ultimate success. Some tribes of North American Indians for instance expected their young priest to thrust strong wooden skewers through the muscles of his breast, to suspend himself by these with his toes merely touching the ground, and to remain hanging thus all day without fainting.⁹

As a consequence of the belief in some tribes that all, and in others that most diseases are caused by demoniac influence, the priest, among savages, has taken possession of the healing art. His chief remedy is exorcism, by songs, instrumental music, incantations, incense, offerings or prayers. He may prescribe an offering to propitiate an offended spirit, and in this case the gift goes to the priest for the spirit's benefit. One mode of treatment is based on the idea that the persecuting spirit will flee if the sick man's hut is made an unpleasant place of sojourn. In such case, the priest shouts, growls, groans, drums, barks like a dog, gesticulates furiously, makes ugly faces, gives disgusting medicines to the patient, burns substances of fetid odor, and as a last resort, sets the hut afire, even if the invalid be so feeble that he can with difficulty escape.¹⁰ Sometimes the priest says the evil spirit is in

a stone, a bone, a lizard, a toad, or a snake, and points to the part of the body occupied by the possessed object. He then puts his mouth to the place, pretends to suck out the thing and holds it up in his hand. With the help of dexterity on one side and credulity on the other this trick is nearly always successful, in everything save curing the patient. Some priests are able to throw up a small pebble or bone at will, and this skill is a great aid in this imposture.¹¹ The Maoris imagine that each organ is exposed to the attack of a special evil spirit, and that the best remedy is to address a suitable prayer to this spirit. The services of the priest are then indispensable. Even if emetics be administered, their efficacy is to be attributed to their potency in driving out the persecuting demon.¹²

Civilized travelers who have had good opportunities of observation, generally believe that the savage priests, as a class, have a sincere faith in their divine commission and in the real existence of their gods ; but that this sincere faith does not prevent those priests from using any trickery that may seem efficient in increasing their own revenue and influence.

SEC. 142. *Sorcerers*.—A prominent part of the savage religion is the belief that sorcerers can control the disembodied spirits and influence them to enter, occupy and injure the bodies of men designated as victims.

To use this malign influence with success, it is necessary, in many tribes, that the sorcerer should get a bit of rubbish from the body of his victim.¹ The best material is some clipping from hair or nails, some saliva or excreta. For lack of these, any article of clothing that he has worn, any piece of food, from which he has bitten a part, may be employed. In Fiji, the bone of one of his ancestors is

sufficient. If nothing better can be had, the earth on which his foot has left its track will suffice. An image made of clay or other material, enclosing the rubbish is called by the victim's name—it is very important, for this purpose, to know his true name—and then scorched, burned, boiled, pierced with a thorn, cut with a knife, or crushed, while the sorcerer prays his god to kill the victim. In Tahiti, a skull is smeared with something that had been prepared as food for the victim and then the spirit of the dead man attacks the person with whose rubbish he has been insulted.² The custom of thus using rubbish to destroy enemies is almost coextensive with savagism and has prevailed in many barbarous and civilized communities. Within the last half century, it has been practiced in England and Scotland.

When it is known that a professional sorcerer has obtained rubbish of a person and has prayed that he may die, death is confidently expected. It is reasonable to suppose that poison is often employed to protect popular expectation from disappointment and sacerdotal credit from serious diminution. Rubbish can be employed to torture and demoralize the dead as well as the living, and to injure the latter through their spiritual guardians.

In many countries, as a protection against sorcery, all personal rubbish is carefully burned; and corpses or their ashes are concealed. Among the New Zealanders one of the most disgraceful calamities that can befall a family is to permit the bones of a deceased chief or warrior to fall into the hands of an enemy. For the purpose of enabling all to secure their own safety, there is an extensive custom in Polynesia, that every person shall receive his portion of food in a separate basket or on a

separate leaf, and that, after finishing his meal, he shall secrete the remnants. There is no eating from a common dish.

If nothing that has been used by the intended victim can be obtained, the sorcerer can make an image representing him and by giving it his name, use it for his destruction. In such case it is impossible to achieve success without the true name of the victim;³ and perhaps for this reason, many savages are unwilling to let their names be known.

Although in tribes with despotic governments, the priests recognized by the chiefs claim to possess and to exercise the powers of sorcery, they are hostile to all outsiders who have the credit of practicing that art. Unless bound together by a strong community of interest, such as relationship by blood or membership in an established priesthood, sorcerers are natural enemies to one another. In some tribes the sacerdotal profession is frequently called upon to find out the magician who has been the cause of a death, and the discovery is made either by omens or by smell. Since a victim must be found for every important offense, such as the sickness or death of a chief or prominent warrior, the life of a man hateful to the priest and without powerful friends, is very insecure. The evil is the result of malignant sorcery and must be expiated before relief is to be expected. Everybody is suspected of being the malignant sorcerer; at least no one save the mighty is safe from suspicion. The father is distrusted by his child, and the child by his father.⁴ If either should be accused by the priest, the other must not venture to interfere. Nobody must demand reasonable evidence; the assertion of the priest or the divination under his management is con-

clusive. The Abipones say that death would disappear from the world if the sorcerers would abandon their deplorable arts.⁵

The belief in the evil eye,—the power of the glance of the envious person to injure the desired object or its owner,—prevails in many savage tribes as well as in all Mohammedan and in many Christian countries. Any admiring remark about a child, without some pious ejaculation to show that no harm is meant, provokes alarm where this superstition exists. In Abyssinia, children, houses and much prized beasts have some striking ornament to fix the attention of the evil eye, and prevent it from doing harm; and many persons wear amulets inscribed with some phrase that is considered a protective charm.⁶

SEC. 143. *Sacerdotal Functions*.—In proportion as the grade of culture is higher, the ecclesiastical organization is more complex and the sacerdotal functions are more numerous. Among the tropical Polynesians, we find custodians of songs and legends, custodians of temples, musicians, and managers of public festivals as well as healers, diviners, sorcerers, sacrificers, and priests of family and tribal divinities.

Besides taking charge of the places and ceremonies of worship, the Tahitian priests officiate at the installations, marriages and funerals of chiefs, act as orators, singers, prophets and leaders in battle, consecrate temples and idols, announce taboos and watch over their enforcement, and by virtue of superior nautical skill and astronomical knowledge, command maritime expeditions to distant islands or groups.¹ At the temples, they beat drums every morning to waken the gods and attract divine attention to the prayers, after which they return

thanks for past favors and recite a litany. In portions of Polynesia the priests baptize and name children,² absolve sinners after confession, and perform operations similar to that of circumcision.

Like the gods of the savages, their priests delight in war. They encourage the chiefs and people to engage in hostilities. They go with the military expeditions, observe the omens or take the auspices and promise victory.³ They bless their warriors on the battle field; they curse the enemies; and they share the spoil. In most tribes they are leaders in the fight; in others, as among the New Caledonians, they stand aloof, fasting and praying for victory. Among the Eggarahs, a high priest always holds the position of minister of war, and the influence of the national religion is of course used to sustain all his military projects. In the Hawaiian group, if a theft has been committed without witnesses, and under circumstances which do not throw suspicion on any one, public notice is given that the gods will punish the offender. A priest throws some nuts into a fire and while they burn, he prays aloud that the thief may die, unless he shall come forward and confess. If he confesses, he is fined; if he does not confess, the chief makes proclamation that the thief has been prayed to death, and the people believe that such a prayer is invariably fatal.⁴

In portions of Polynesia if a person be suspected of having committed a crime, the priest may summon him to come forward and take an oath of his innocence. His compliance is accepted as proof; his refusal as an admission of guilt. The belief is universal that perjury in such a case is punished promptly with death.

Among the Cheyennes, one duty of the tribal priest is to organize and superintend a sacred dance in the early

spring, to determine by its omens, whether the good god—the divinity favorable to the tribe—will have control over their fate in the approaching season. If the result should prove favorable, they will undertake some hostile military expedition; if unfavorable they will seek to avoid an encounter. The good omen is the completion of the dance without the death or exhaustion of any of the participants, of whom all must dance, and whistle for forty-eight hours at least, and perhaps for sixty or seventy, never stopping for food, drink, rest, or any relief. This dance is called “making medicine” for the tribe. The superintending priest designates the time when, and the place where the dance is to be held, selects the men who must participate, releases those who fall down from overexertion, or orders them back to continue their work, and decides when success is assured and the dance may stop. If one of the dancers should die, as sometimes happens, the ceremony comes to a sudden end, and without an announcement from the priest, everybody understands that the bad god is the master of the tribe for a year to come.⁵

One effective function of the priests is to punish their enemies. In portions of Africa, the man who refuses to pay tribute to the clergy, or who neglects to comply with the established ecclesiastical observances, has an insecure life. At any moment, and without the least evidence against him, he may be convicted of sorcery and executed. For those who commit minor offenses against the sacerdotal authority, there are various punishments, such as those of Mumbojumbo, in which a party of disguised priests appear suddenly in a village and give unmerciful beatings to those selected as victims.⁶

SEC. 144. *Areoi*.—Several Polynesian groups had an

ecclesiastical society called the Areoi,¹ and the Mariana Islanders had a similar organization, styled by them, the Ulitao. Membership in it was highly honorable and reserved for the nobles. Its main purpose was to provide entertainments at the public festivals, and as these were always ecclesiastical, the association partook of the same character. Admission was desired by all and was granted to few, save those who had some special talent or skill, or strong influence with high chiefs or priests. There were seven ranks, and admission was granted only to the lowest; with promotion by one grade at a time to those who had proved successful in amusing the multitude. The rules of excluding mediocrity and rewarding merit, and the imposing ceremonies with which promotions were celebrated, contributed much to the lustre and influence of the Areoi. Its members were marked with a special tattoo for every rank, familiar to everybody.

It was the duty of the society to give dramatic performances, concerts, dances, athletic games, and sham fights, and to travel from island to island, whenever the time occurred for the local festival. They decorated their heads with flowers; they dressed in bright colors; they painted their bodies with black and their faces with scarlet. They included all the best actors, singers, dancers, and athletes in the country. Everywhere they were received with demonstrations of respect, supplied with the most delicious food, and allowed great privilege.

Many of their songs were licentious, and at every festival, members in the lower ranks took part in scenes of gross obscenity. Women as well as men were Areoi; and all members of the society, whether married or not, were exempt from the rules of chastity. The gratifica-

tion of their libidinous desires was considered a pious obligation. All their children, save the first son of the highest chief, were slain immediately after birth.² Tonga, Samoa, and most islands of the Marquesas group have no Areoi.

SEC. 145. *Revenue, etc.*—The custom of making offerings to the gods in temples implies a sacerdotal revenue. Every system of worship in which animals are sacrificed by a priest or under his supervision, authorizes him to take part of the meat for his own use. It is so in Polynesia and Africa;¹ it was so in ancient Egypt, Babylonia, Greece, and Rome. The Mosiac law authorized the priests to appropriate a share of the victim.²

The Tahitians, Costa Ricans, Zunis, Moquis, and many other savage tribes, have peculiar sacerdotal dialects, doubtless the remains of tongues which had become partly or wholly obsolete among the common people. The Nagas, Todas, and Damaras kindle fires, for ordinary purposes, with matches or other devices obtained from civilized visitors; but their sacred fires must be lighted by the ancient method of friction with sticks; and the same process of ignition was used for superstitious sacrifices in the Scottish Isles two centuries since, and for kindred purposes in Germany until recent times. The same tendency to regard ancient sacerdotal usages as sacred, appears in the Jewish requirements that the stones of the altar should not be hewn,³ and that the bread for offerings should not be leavened;⁴ in the adherence to stone knives for sacrifice by the Aztecs, Chibchas, and Karens after they had metal; by the employment of dead languages in the worship of various African and Polynesian tribes, as well as among Copts, Japanese, Buddhists, Jews, and Roman Catholics; and

by the adherence of the Egyptian priests to an archaic style of writing.⁵

SEC. 146. *Taboo*.—Taboo, one of the remarkable ecclesiastical institutions of savagism, was potent in Polynesia, less prominent in Micronesia, and relatively weak in Melanesia, Malaysia, Central Africa¹ and part of Hindostan. The Polynesian word taboo, according to some authorities means sacred, according to others “obey or die.” The institution is a sacerdotal prohibition of certain acts under penalty of death. It consecrates certain persons and things. Every head chief is taboo; no subject can strike him without sacrilege. The taboo of the temple forbids any unconsecrated person to enter its precinct. A kind of food may be taboo to a class of persons. If a tree is taboo, nobody but its owner can pluck its fruit.

The Polynesian taboos are of many kinds, general and special, permanent and temporal, simple, compound and interdict. A permanent taboo is of ancient origin, and known to everybody. It is enforced without notification. Such are the rules that a dish used to hold the food of one person, must not be employed by another for the same purpose; that food must not be cooked or eaten in a sleeping room; that the wife of the head chief must not be touched lustfully by another man; and that slaves, women and common freemen must not eat certain kinds of food, nor enter temples, nor own canoes, nor go out to sea in canoes. All temples, their enclosed ground and their idols are protected by permanent taboos.

One of these rules provides that whenever the head chief touches a piece of property he becomes its owner. In crossing the estates of his subjects, he is carried carefully so that he shall not come in contact with the soil.

In many groups his name is taboo to the common people, and so are all words of the same sound. A general taboo is attached to the process of tattooing, and while undergoing it, a man must not touch food or a food dish with his hands. Every morsel that he eats must be put into his mouth by some other person. Certain acts are contaminating and he who has committed them is taboo until he has undergone a ceremony of purification, or until a definite period has elapsed. A new house is taboo and cannot be occupied until a priest has driven away the evil spirits, and consecrated it. A new temple is taboo until the head chief has entered; and not till then can it receive its idols or be used for worship.

In part of Borneo, a taboo, akin to quarantine, forbids all persons, save those dwelling in a house, to enter it within twelve days after a death in it, or to speak to any of its occupants within that period; and in the same region, after a death by a pestilential disease, the village where it occurred, and all its residents are taboo, for eight days, to the people of other villages. Every such taboo must be raised by the sacrifice of some animal.²

In Polynesia, general taboos that are not permanent, are proclaimed by a public crier. In this class belong the prohibition to kill pigs or chickens for six months, after the supply of them has been much reduced by some great festival. The cows and other quadrupeds introduced into the Hawaiian Islands by Vancouver were protected for ten years by a general taboo. An English sailor who offended a chief, was subjected to a special taboo under the influence of which no native would have anything to do with him. He begged for mercy and was purified of his offense by the priest.

When a country is in great danger from a foreign

enemy or when the head chief is dangerously sick, an interdict taboo, suggesting the interdict of the Roman Catholic Church, is imposed on the whole community. It forbids the kindling of fire, cooking by use of artificial light, the hoisting of a sail, bathing, all public amusements, and all loud noises save those made in the ecclesiastical ceremonies. The barking of a dog, the squealing of a pig, or the crowing of a cock, within the hearing of a chief or priest, at such a time is a great offense to the gods. During the interdict such animals must be taken far from the temples and villages, or secured so that they shall make no audible noise.³ The interdict is usually of brief duration, but one in Hawaii lasted thirty years. The simple taboo requires prayers in the temples and abstinence from business by the nobles.

The taboo rules are not the same in any two groups of Polynesia or Micronesia. Each country has peculiarities in this respect. Usually taboo strengthens the power of the chiefs and nobles, and keeps the women, commoners and slaves in subjection. To these latter classes *ava*, the only intoxicating drink, is taboo. There is not more than enough for the male nobles. Intoxicating drink is everywhere taboo, as are, in nearly all the islands, the rare kinds of delicious food, but *Karavia* is an exception, for there turtles and pigs are taboo to the men, as they are elsewhere to the women.⁴ The first fruits and fish of the season are reserved for offerings to the gods; they cannot be eaten by men without great offense.⁵ In Southern California, a custom suggestive of taboo, forbids the hunter to eat any part of the animal he has killed until he has taken it to the village to share with his family.⁶

Taboos to protect special pieces of property are indi-

cated by marks attached to them. For this purpose a bundle of bamboo leaves, a cocoa leaf, a piece of bark cloth, or the figure of some animal cut out of bark or plaited with twigs, may be used. Among the Santals, a handful of straw, fastened on a bamboo stick, standing in the field, will give protection.⁷ In New Zealand, the taboo mark is red; in other parts of Polynesia, white; in Fiji, yellow.

The penalty of violating a taboo is death, and it may be inflicted by the chief, the priest or the discoverer of the violation. After secret violation of a taboo, a man sometimes confesses and presents himself to the priest to be sacrificed to the gods. Those general taboos, which are announced by public cries, are raised by ecclesiastical ceremonies including sacrifice, prayer and lustration.⁸ In Samoa, a sick man is questioned by the priest whether he has not broken a taboo, and if he says no, he is nevertheless purified with holy water to wash away any sin that may have been committed unconsciously.⁹

The important taboos emanate from the head chief directly or through the priests; the minor taboos, such as those designed to protect individual property, may be attached by the owner. In the latter case, however, they have no force against a person of higher rank. The raising of the greater taboos requires special ceremonies, including the washing away of the consecration. No person is allowed to approach the high chief in Samoa until he has been purified for the occasion by sprinkling with holy water.¹⁰ Of the taboo as enforced in Hawaii, Jarves¹¹ says: "It may be regarded as one of the greatest productions of heathen ingenuity. A more powerful system of religious despotism, at once capable of great utility and equal abuse, could not have been de-

vised. Its application was adapted to all circumstances, and no civil or ecclesiastical government ever possessed a more refined yet effective weapon. Its influence among the common people was universal and inflexible. Its exactments were of the most humiliating and troublesome description, and if anything had been wanting to complete their bondage, this, like the keystone to an arch, was made to perfect and perpetuate their degradation."

The system of taboo reached its highest development in countries like Tahiti and Hawaii, which had despotic chiefs, hereditary nobles, and powerful priesthoods. It had relatively little influence among the Maoris, who had no hereditary priesthood. It was not known among the Redmen, who have no hereditary class with superior privileges to be protected against trespass by the rabble. Wherever taboo exists, the people accept it as of divine origin and authority. The priests say so and the multitude believe. The sanction of the celestial command is not left however to celestial agency; the priests promptly slay the man whom they detect in the violation of their orders.

SEC. 147. *Omens, etc.*—Savages imagine that the spirits who surround them and take great interest in their life, are continually giving them omens, by which they can know what course to pursue in every contingency that may arise; and they attribute a large part of their success or failure in life to the greater or less degree of attention with which they observe and accuracy with which they interpret these signs. A sneeze, a yawn, a stumble, a flash of lightning, the appearance of a quadruped, bird or reptile, the direction or speed of its motion, may indicate that the enterprise which the man is about to under-

take should be pursued or abandoned. The sight of a hare suggests caution ; that of a tortoise, slow movement ; that of the totem of a hostile tribe, great danger, that of the totem of the warrior, success ; or that of a fierce predatory bird or quadruped, encouragement. In Central Africa, Emin Pasha found these omens: "If an owl screeches near the house, its master dies. If a hyæna or jackal repeatedly approaches the house, misfortune is at hand. When the rhinoceros-bird croaks, rain may be looked for. If a wagtail sings on the threshold, guests or presents will arrive. If a man kills wagtails in the house, fire breaks out in it. If a wagtail forsakes its nest, made in the house, misfortune is near. Vultures and ravens are chiefs among birds and their slaughter causes illness. If vultures alight on the top of a poor man's house, he will receive high gifts and presents. . . . If on moving from one house to another, anything is broken or a woman falls on the way, the family returns to the house it has left. If on starting for a campaign a buffalo runs across the path, or a guinea fowl flies up before the warriors, this portends the death of many men and every one turns back." ¹

Most of the tribes which attribute all deaths to sorcerers, study omens to discover the homicidal sorcerer in the case of every prominent man or warrior. The simplest omen, for such purposes, is the presumption that the first person met by the avenging party is the criminal. In some tribes, straws are laid on the fresh grave, pointing towards every village in the vicinity ; and the first straw on which a fly alights, indicates the place where the offender lives.² In some tribes, the direction taken by a bug put on the grave points out the home of the sorcerer.³

Besides the omens offered to them by the face of nature, many tribes seek others in the revelation of priests and spirit mediums, in the appearance of the entrails of birds, and quadrupeds and human beings, and in a varied multitude of experiments. Of these methods of learning the will of the supernatural powers, the one most extensively used is divination from the entrails of birds. It is used by the Polynesians,⁴ Araucans,⁵ and Kaffirs.⁶ In Uganda, human beings are sometimes sacrificed for the purpose of taking the auspices.⁷ Ordeals are nearly akin to divination in the beliefs out of which they grow, and are largely ecclesiastical in their nature, but as their purpose is to administer justice, their consideration belongs properly to the chapter on polity.

SEC. 148. *Temples*.—Under the impulse of respect for the dead, men learn to protect the corpses of their relatives and friends from wild beasts, by either burying or burning. Since the graves are often shallow on account of the lack of tools for digging, the degree of security for the corpse is estimated by the height of the earth or stones heaped up over the body; and then the importance of the deceased and the esteem of the survivors are measured by the same standard. Thus sepulchral mounds began, and became numerous and large.

A large class of conical sepulchral mounds is found in the Mississippi basin. Of these many have, in the center, on the surface of the ground a burial chamber of wood or uncut stone; and others have similar tombs of later date at higher levels; others have in the center, a clay altar about two feet high, a yard or more wide, and two yards or more long, with a slight concavity on top. On such altars might be found fragments of pottery, beads and ashes, suggestive of cremation.¹

One mound seven yards high and sixty in diameter, in southwestern Ohio, about thirty miles from Cincinnati, appears to have been the cemetery of a village. It encloses many chambers made of uncut slabs of blue limestone, each chamber being about three feet high and containing one corpse in a sitting posture. There are several layers of such chambers, all covered with earth.² Mounds containing urns, with bones burned or unburned, are found in South Carolina.³

An ecclesiastical mound, near Seltzertown, Mississippi, is six hundred feet long and four hundred wide on the ground, and forty feet high. A shaft forty feet deep near the middle did not reach the natural surface of the ground. At the sides were found sun-dried bricks.⁴ One of the most remarkable structures of the mound-builders is at Marietta, Ohio, on a plateau, eighty feet above the level of the Ohio River. Two enclosures, each nearly square, one containing twenty-seven and the other fifty acres, surrounded by earth walls about six feet high, contain each four tumuli. Of these, the largest is a terrace, one hundred and eighty feet long, thirty-two wide and ten high. There are two smaller terraces, and five conical mounds about fifteen feet high.

Among the notable earthworks constructed by the same race are mounds shaped like various animals. Adams County, Ohio, has a serpent seven hundred feet long, thirty wide and five high. The body of the reptile has four curves on each side, and the tail winds round in a coil. The mouth is open as if about to swallow an egg, which last is represented by an oval terrace one hundred and sixty feet long and eighty wide. In the center of this terrace, there is a stone mound.⁵

One mile from Granville, Licking County, Ohio, there

is an alligator mound, two hundred and fifty feet long, forty feet wide in the body, with legs thirty-six feet long. The height is six feet.⁶ Since the settlement of the country by the white men, no alligators have been found within five hundred miles of this place. Other mounds represent man, mammoth, buffalo, wolf, bear, and bird. The mammoth mound in Grant County, Wisconsin, is one hundred and thirty-five feet long, and forty wide across the body.⁷ The similarity of the mound to the great pachyderm is striking; but as the soil near the mound is sandy, some writers have asserted that the trunk has been made of a sand drift.

For the purpose of protecting the grave and its offerings against beasts and the weather, many tribes buried the body within the hut which was then abandoned as a habitation; or they erected a special building over the grave, and in case of a chief, placed the building in charge of a custodian instructed to make offerings of food, flowers and incense, and to sing hymns of praise every day. Such daily offerings are made in the sepulchral huts of Tahiti.⁸ In Sumatra and New Guinea the graves are covered with shelters.⁹ The Dyaks put the sword, shield, paddle and other property of the deceased in a sacred hut.¹⁰ In Fiji the corpses of chiefs are put into huts which are rudimentary temples. In Congo, the body of the deceased chief is deposited in a hut to which clothes are taken as presents, and as these presents accumulate, in the course of time it becomes necessary to build other huts, perhaps five or six, to hold them. The persons who make the offerings, pray to the spirit for protection and blessing.¹¹ The Buddhist topes are tower-shaped tombs, built of stone and solid. Prayers are offered at them and processions of worshipers march round them.

Among the Turanians, according to Mr. Fergusson, "the tomb and temple may be considered as one and the same thing."¹² The corpse of every Inca monarch had its chapel, where his spirit was worshiped.¹⁴ The tomb of Darius resembled his palace.¹⁵ The tombs in Egypt were more splendid than the dwellings, and as they were places for regular worship, and were never used for habitation or business, they became temples.¹⁶ There were cave temples as well as cave sepulchres.¹⁷ Among the Tongans and Kaffirs, the grave of a high chief is a sacred place, where a man may not be slain, and where enemies must meet as friends, or at least without any act of violence.

When a numerous priesthood devote all their time to sacerdotal business, they acquire consecrated grounds and temples, among savages as well as in barbarous and civilized communities. In New Zealand and the Queen Charlotte Islands, there is no class of men devoted exclusively to priestly duties, and there are no temples, but there are sacred groves.¹⁸ The savage temples are usually in the midst of groves. The only aboriginal stone structures of Polynesia are the maraes, places of burial for the chiefs, and temples for worship. Some of these maraes are simple mounds of earth enclosed in a wall of stone, and have successive terraces or steps. The marae on Atahiva Point, Tahiti, is eighty-two yards long, twenty-nine wide, and fifteen high, rising in ten steps, each more than a yard high and in some places three yards wide. The highest terrace is four yards wide and sixty-six long.¹⁹ The enclosing walls are of coral rock cut into shape, but how cut no one knows, for it is supposed that the marae was erected before the arrival of the first Europeans, and before metallic

tools were known.²⁰ The only place where similar material can be obtained in the vicinity, is now three feet under water at low tide. The enclosed grounds of this marae have an area of about three acres, with numerous large trees, one species of which is a casuarina, and the rustling of its leaves in the wind is said by the temple priests to be the voice of the gods.²¹ In the enclosure there are houses for the priests and idols. Every one of the larger islands of the Tahitian group has its marae. In Ponape, the marae is four hundred and thirty yards long, and seven yards wide;²² in the Marquesas group, there is a marae one hundred yards long, twenty wide, and three high; and in Tongataboo, the marae has stone blocks eight yards long, four wide, and more than a yard thick.²³

The platform to hold the offerings, in the grave, huts, and burial grounds of Tahiti and Hawaii, have the size and shape of biers, and are incipient altars. The Bedouins pile stones over the graves and there sacrifice sheep and camels to the dead, using the stone heap for an altar.²⁴ The early Hebrew altars were of undressed stones, reminding us of those of their modern Semitic relatives.²⁵ The Central Americans make altars of stone and mortar over graves, and on them burn incense and make offerings.²⁶ The altars, at the entrance of the catacombs of Thebes are carved with representations of offerings, like those painted on the tombs, suggesting that the tomb was used for an altar, and that the latter was differentiated from the former.²⁷ The tumulus over the grave of a Chinese emperor, being too large for use as an altar, a small structure must be erected at its side to hold the offerings.²⁸

The rude stone monuments known as menhirs and

dolmens or cromlechs have, by many writers, been attributed to savages, but Fergusson, the highest authority in reference to them, thinks they were erected by barbarians and description of them is reserved for the next volume.²⁹

SEC. 149. *Religious Development*.—Like other departments of culture, savage religion is a human production. Neither in its origin nor its growth, neither in its dogmas nor its ceremonies, neither in its priesthood nor its influence, does it bear the marks of supernatural wisdom or goodness. Unlike the Pallas of the Grecian myth, it did not appear at the moment of birth, as a full grown divinity. Whatever may justly be claimed for divine revelation in higher conditions of progress, there is no proof, nor even the least evidence of any direct communication, from a supernatural source, of religious truth to the savage man.

The beginnings of religion, as we have seen were almost imperceptibly small; its early forms coarse and rude; and its ideas unsound; its later forms slow in their development; its sacerdotal representatives arrogant and violent; and its believers ignorant and credulous. It had no morality, no great first cause, and no immortality. Its spirits, its gods, its divine communications, its omens, its taboos, its divine penalties for the violation of taboos, its sorcery and remedies for sorcery, its diagnosis of and remedies for disease, and its sacerdotal authority had no basis save in a wild imagination.

We have found the first phase of religion in adoration of souls, which are conceived vaguely as having no blood relationship to the worshiper. This form of faith, based mainly on dreams accompanied by a timorous feeling, is found among such low savages as the Austral-

ians. A little higher is soul worship when associated with totemism; and still higher when accompanied by fetishism. After men have risen to tilling culture and have then advanced to the masculine clan, they abandon the worship of souls, and adopt that of their ancestors. They make offerings and sacrifices regularly at the grave, and build altars and temples.

After adopting compact tribal organizations, and despotic chiefs, they recognize national gods, establish hereditary priesthods, and adopt elaborate rituals of worship.

There is no evidence in favor of the theory that true religion was revealed to the primitive men and that it was then corrupted by the infirmities of humanity. All the presumptions point in the contrary direction. No other branch of culture has such peculiar guarantees against decay. No other has such a hold on popular affection. No other has been in the hands of a body of men so intelligent, and so steadfast in maintaining their ideas and customs. Political institutions are overturned more easily and more frequently than religions. In savage tribes and barbarous nations generally, the priests are the most powerful, most conservative, and most permanent class of persons. In the ruder communities, no such well-paid, jealous, influential, and well-organized class in the full vigor of years and experience has ever become the custodians and managers of the social and political affairs, as are the priests in many nations.

Religion has so much influence over the human mind; it has been accepted everywhere with such complete faith by the multitude, and in the higher phases of savagism, it has been so profitable to nobles, priests, and chiefs, that they certainly never could have allowed it to decay.

As a matter of fact we know that willingly they never did. The hypothesis of degeneration is as much a product of a wild imagination as is savage religion itself.

The assertion has been made by the Duke of Argyle and accepted by Max Muller that "Whenever we can trace back a religion to its first beginnings, we find it free from many blemishes that affected it in its later stages."¹ That idea has not found the least confirmatory evidence in the religions of savagism. Neither in Polynesia, nor America nor Africa have we found a religion free from blemish nor have we found one that was corrupted by advancing culture. In regard to the tendencies in the development of religion in barbarism and civilization, the proper time to express opinions, will arrive after the evidence has been submitted. In savagism, religion improves with time.

CHAPTER IX.

REVIEW.

SECTION 150. *Culture Services*.—The lowest form of culture, directly known to us, is that of non-tilling savagism, in which man possesses edge tools, missile weapons, articulate speech, tame fire, defensive groups, retaliatory justice, and soul worship. How long he had lived on the earth before he made these acquisitions, we do not know; but the history of his mental development, since he obtained them, is traceable more or less clearly; and its main events, before he learned to smelt metals, are told in this volume.

In looking back at the achievements of man in savagism, we find that he became an excellent hunter and fisherman. He supplied himself with clothes and dwellings. He acquired skill in agriculture and navigation. He accumulated stocks of food. He built large villages. He maintained communities, in which density of population stimulated thought, favored the lively circulation of ideas, and aided progress. He devised rules of politeness to guide the intercourse between equals, between host and guest, between chief and subject. He organized groups bound to defend their members, and he gradually enlarged them. He established slavery, nobility, and strong government. He invented defensive armor and

fortifications. He used strategy and made beginnings in tactics. He adopted theological creeds and ecclesiastical systems. He had ceremonies of worship, and rudiments of a code of morality.

This summary of the services of the savage to progress, shows that he laid the foundations and built an important portion of the superstructure in all the main departments of culture. The credit, for his numerous and valuable contributions, does not belong exclusively or mainly to any one country nor can we trace the origin of any one of them unmistakably to a special continent nor even to any race.

SEC. 151. *Grades of Culture.*—For the purpose of comparing the cultural conditions of some of the lowest tribes, the following table has been compiled. A blank, in the table indicates that information is lacking. N stands for no and Y for yes. The main tests, for the lowest culture, are the possession of four numerals (that is whether the tribe can count more than three), dogs, canoes, huts, tillage, chiefs, pottery, polished stone, cloth, and funeral rites. The lowest Californians are those of Lower California; the lowest Australians are those of Western Australia.

TRIBES.	Four numerals	Dogs.	Canoes.	Huts.	Tillage.	Chiefs.	Pottery.	Polished Stone.	Cloth.	Funeral Rites.
Bushmen	N	N	N	N	N	N	N	N	N	N
Lowest Californians	N	N	N	N	N	N	N	N	N	Y
Tasmanians	N	N	N	N	N	N	N	N	N	Y
Lowest Australians	N	Y	N	N	N	N	N	N	N	Y
Andamanese		N	Y	N	N	N	N	N	N	
Fuegians.....		Y	Y	N	N	N	N	N	N	N
Drift Europeans		N			N		N	N		N
Echinus Aleuts		N			N		N	N		N
Hill Veddahs ..		Y	N	N	N	N	N	N	N	Y

Cook, Darwin, Fitzroy and Wallis thought the Fuegians the lowest of all tribes in culture. By Burchell that distinction was awarded to the Bushmen; by D'Urville to the Australians and Tasmanians; by Forster to the Mallicollos; by Owen to the Andamanese; by Peschel¹ to the Botocudos; by Bailey to the Veddahs; by Pickering² to the wild people in the interior of Ceram; by Fremont³ to the Piutes at Christmas Lake; and by Waitz⁴ to the Australians, Bushmen and Fuegians. Among these tribes, considered by various authors as belonging in the lowest grade of savagism, the only cannibals are the Botocudos, who are also the only tribe on this list, possessing the art of making pottery.

Some Australians have dogs but no canoes; the Andamanese and Fuegians have dogs but no huts; many western American tribes dwell in good huts, though they do not till the soil; among the Polynesians and Micronesians tillage preceded pottery; the Maoris have polished stone and tillage but no cloth nor pottery, and the Fijians and some South Americans have pottery but no cloth. The canoe made of plank indicates higher skill than that made of bark or of a single log; the oar is higher than a paddle, and the sail higher than the oar. But the lack of industrial improvements may in some cases be charged to the poverty of natural resource in a district, rather than to the stupidity of its human occupants. It was impossible to invent sail boats in deserts, or pottery in regions which produced no clay.

All the leading weapons made without metal were known to non-tilling savages, but the order of time in which they were introduced is not now discoverable. The simplicity of the spear suggests that it was the first of missile weapons to be shaped and polished with care.

We find it as the chief weapon of the Australians and Tasmanians, while the Bushmen, Lower Californians, Fuegians and Andamanese, on the same general level of culture, use the bow in preference, if not to the exclusion of the spear. The sling is common among the Fuegians and not among the Andamanese, Bushmen or Australians. The throw-stick and spear-sling, ingenious and effective devices for giving additional impetus to spears, are not found among the most advanced savages, as the Polynesians, but are limited to such relatively low tribes as those of Australia and New Caledonia. The Fuegians have fish hooks; the higher Chippeways and Blackfeet have none, though they have in their waters an abundance of fish suitable for the hook.

The following table shows certain cultural features of some advanced tribes:—

TRIBES.	Sail Canoes.	Slavery.	Nobility.	Despotic Chiefs.	Temples.	Hereditary Priests.	Tribal Deities.
Iroquois.....	No	No	No	No	No	No	No
Creeks.....	No	No	No	No	No	No	No
Dakotas.....	No	No	No	No	No	No	No
Kaffirs.....	No	Yes	No	Yes	No	No	No
Maoris.....	Yes	Yes	No	Yes	No	No	No
Samoans.....	Yes	Yes	Yes	Yes	No	No	No
Fijians.. ..	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Tongans.....	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Hawaiians.....	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Tahitians.....	Yes	Yes	Yes	Yes	Yes	Yes	Yes

SEC. 152. *Some Characteristics.*—As a general rule, the lower the culture, the scantier the population. Waitz¹ quotes Foissac's estimate that tillage will support, on the same area, twenty times more people than pasturage, and that pasturage will support twenty times more than

the chase or the gathering of wild fruits and seeds. Lubbock² allows seventy square miles for each savage hunter, and perhaps bases his calculation on the statistics of the Hudson's Bay territory which, about 1850, had one million four hundred thousand square miles and one hundred thirty-nine thousand aboriginal inhabitants, or five persons, equivalent to one hunter, for seventy square miles.³ But much of that area is in a frigid climate, where vegetation and animal life are very scanty; and besides, the number of inhabitants represents the condition after there had been a great decrease in the number of wild animals by slaughter for pelts to supply the European market. The deserts of Australia, the African Sahara, and Central Asia and the enclosed basin of North America could presumably not support more than one savage family to fifty square miles; but these are regions of exceptional aridity and sterility. Aboriginal New York had about one inhabitant to two square miles, and this number is presumably near the average of fertile countries in the temperate or torrid zone.

Here and there we may find districts which would support a dense savage population without tillage. Such was a belt along the Columbia River for four hundred miles from its mouth where the salmon was exceedingly abundant. Another district of the same class was that extending from the Mississippi River three hundred miles westward between latitudes thirty-seven and forty-one, where fertile plains covered with luxuriant grasses in the track of the migrating buffalo, were favorite feeding grounds for them. The Redmen could cure the meat of buffalo and salmon to keep for a year, and could procure abundant supplies in the season of their migration.

The capacity of cultivated land to support population, besides being dependent on water supply, temperature, fertility, and method of tillage, varies much with the productiveness and nutritious quality of different plants. An acre of wheat may yield twelve bushels or seven hundred and twenty pounds, enough to maintain one average person for a year. The potato crop yields a hundred bushels, or when reduced to the same proportion of moisture, twice as much as the wheat, and enough for two persons.⁴ The date palm bears three hundred and sixty pounds of fruit to the tree, and an acre will feed five persons.⁵ The bread fruit will sustain eight persons to the acre,⁶ and banana twenty-five persons, its yield being one hundred and twenty times greater than that of wheat, and after deducting moisture, twenty-five times greater.⁷

In the beginning of his existence as a race, man's life was monotonous, short and insecure. He had little clothing and poor shelter to protect him against the inclemencies of the weather. His supply of food was often insufficient, and unwholesome. He was constantly surrounded by danger from cannibal men, from carnivorous brutes and from his own superstitious fears. His industrial capacities, his reasoning powers, his moral feelings, and his artistic perceptions were undeveloped, and so many of the pleasures furnished by them to civilized men, were unknown to him. As a race his condition was immature and even infantile. But even then, with all its drawbacks, life was precious to him. Conscious existence was the greatest of all blessings, and death the greatest of all evils. He rejoiced when he escaped from any imminent danger; he lamented when his friends had closed their eyes forever to the sunlight.

In consequence of the irregular and often unwhole-

some food supply, the frequent and severe famines,⁸ the scarcity of accumulated property that might be used in purchasing provisions, the lack of a generally accepted medium of exchange, the costliness and slowness of transportation, the continuous and general hostilities preventing migrations to districts with abundant supplies, and the customs of infanticide and habitual warfare, there is no perceptible increase of population in the average savage tribe from generation to generation.

In savagism, war is almost constant; life is short, insecure and relatively little prized; famine is frequent; regular toil is without respect or prominence; there is no governmental protection of right or punishment of crime; religion has no recognized connection with morality; the wife is little better than a slave; and the general mental condition is not much above that of the brute. In civilization the condition of men is much better as to all these points. Wars are less frequent and less destructive, the average duration of life is more than double; famines are rare; toil is reputable and productive; the popular religion has a high ethical standard; governments are watchful and efficient in protecting private rights; and numerous intellectual entertainments are provided for hours of leisure.

SEC. 153. *Departmental Relations*.—The time has come when we should turn our attention to the influences exerted by the different departments of savage life on one another.

Industry is the foundation and main force of culture. It occupies most of man's time. It furnishes the sole support of his physical existence. He might live in a brutish manner, without the aid of any other, but not without this department. In many respects, it exercises

a great influence on the other branches of life. By its successive advances, it enables and compels man to organize social and political institutions.

Among the branches of industry, the most important is tillage. It creates a stock of property which demands the protection of a strong political organization. It makes a demand for professional soldiers and gives them leisure for military drill. It builds towns which are the centres of social, political, intellectual, and ecclesiastical influence. It leads to the establishment of slavery, to habits of regular toil, and to the recognition of the respectability of agricultural labor. Through slavery it leads to hereditary nobility and to stronger political organization.

Military discipline which was the effect of agriculture, was, in its turn, the cause of many important changes in life. It demanded habits of order, obedience, and recognized responsibility. It gave dominion to practical judgment, to courage, to tact, and enabled the men possessing these qualities to occupy the most desirable countries. It gave increased security to life and property. It overthrew the feminine clan, and the small group; it established the masculine clan, the consolidated tribe, and powerful chieftainship.

The masculine clan, in its turn, overthrew soul-worship and established ancestor worship. The consolidated tribe led to the recognition of tribal divinities, with hereditary priesthoods, with temples and pompous ecclesiastical ceremonies. The church became a buttress of the State. The altar and the throne combined their forces to subjugate the multitude, and though their yoke was heavy and cruel, it was necessary to the cause of culture. Social institutions and general intellectual activity are

effects rather than causes in the advance of savagism. The greatest power is industry ; next to it is military discipline ; after that polity, and then religion.

When we considered separately the advance of industry, social life, language, morality, polity and religion, we found much reason for believing that each is a natural and necessary product of our mental constitution, and that each grew, in accordance with general laws, from its earliest beginning to the end of the stone culture-step, beyond which our examination has not extended. This evidence is fortified by other proof, furnished by the relations of the various departments of culture to one another. Those branches which are the least spiritual, and for which the least claim of supernatural origin and aid has been claimed, are also those which have exerted the most influence on general progress, and out of which, to a considerable extent, the others have grown. These are industry and military organization, which are the foundations of all the more advanced political, social, and ecclesiastical systems. They have rendered much assistance to religion and morals, and have received little in return. That which needs and accepts the help of natural influences must, itself, be natural.

The supposition that human culture, or any branch of it, is of supernatural origin, is contradicted by all the analogies, as well as by all the direct evidences of history and science. No eminent astronomer, geologist, chemist, biologist, or archæologist claims to have found on his domain one unquestionable act of supernatural power. Under the uninterrupted and exclusive jurisdiction of natural law, the celestial bodies shaped their globes, adopted their orbits, and regulated their speed ; the

earth formed its strata, continents, mountains, valleys, seas, and rivers; the elements united by chemical affinity, with definite proportions, into various minerals each possessing its peculiar and invariable crystallization-angle, color, and specific gravity; the physical and psychical forces inseparably attached to matter, changed their forms and conserved their energy; and plants and animals developed their species, until animated nature blossomed into the enlightened man. Nowhere in all this wide range of knowledge connected with the origin and early life of man and of his terrestrial dwelling place, has scientific or historical research been able to find anything that transcended the laws of nature. The telescope, microscope, and spectroscope, the scale and assay tube of the chemist, the hammer of the geologist and the spade of the archæologist, all make the same report. They have not anywhere found any effect that could be traced directly and immediately to a supernatural cause.

Besides, archæologists, ethnologists, and historians are agreed that the numerous events, attributed by savages to supernatural agency, are, without exception, the results of mere natural agencies. All the communications which the heathen priests claim to receive from disembodied spirits, all their auguries, all their omens, all the sorceries which they pretend to discover or to perform, all the supernatural possessions which they report,—all these are results of delusion or deception.

SEC. 154. *Queer Customs*.—The queerness of certain customs becomes more queer when we observe that they are found in regions widely separated from one another, and that in the intervening spaces, they are unknown or are considered absurd. The civilized man cannot easily believe that, in any condition of culture,

fashion should make it obligatory to wear a large and heavy block of wood or stone, as an ornament in a hole cut through the lower lip. In one case the hole and its bung were each five inches long and three inches wide; in another the weight was a pound. A labret of such size and weight, besides being a source of much discomfort to the wearer, must distort the face and make it disgusting to any spectator of refined taste. And yet among savages such things were indispensable to the woman of fashion, in Alaska, in Central America, in Southern Brazil, and in Central Africa.

Another custom which, for its discomfort and injury to good looks, and lack of any compensating advantage, may be placed along side of labret wearing, is the breaking out of permanent teeth, the sacrifice in some tribes extending to four or even six of the front teeth. In its extreme phases, this detestable practice is limited to Africa, though in its milder forms it extends to Melanesia and Malaysia. Akin to it, is the teeth filing process. Less productive of discomfort are the customs of flattening the head, and the nose, stretching the ears, cutting out part of the ear and part of the septum of the nose, pulling out the eyebrows and eyelashes, circumcision and the practices akin to it. Tattooing was a very painful process, but it was a test of endurance, and in climates where clothing was very scanty, was a decoration. The same remark applies to the marking of the face, limbs and body with cicatrices. The tortures inflicted on the young men before they could be admitted into the warrior class, in many tribes, seem almost incredibly severe to the civilized reader, and so do the trials of the participants in the divination dance of the Redmen to determine whether the coming season is to be favorable

to their military operations ; but they had the practical purpose of proving strength and endurance, which entitle the possessor to much more honor in savagism than in civilization. The couvade and son-in-law shyness, like other strange usages mentioned in this section, are found scattered over various continents and are unknown to extensive intervening regions.

These queer customs serve to illustrate the great differences between the tastes of low and high culture, but they give us little valuable light on the influences that have aided the course of general progress. We seek in vain for reasons why these customs should be limited to the areas where we find them. Whether they originated independently in every district where they now exist, or whether they once covered whole continents and afterwards fell into desuetude in many countries, are unsolved problems.

The extensive modern prevalence of the feminine clan in the widely separated regions of North America and Australia, and the traces of its existence in all the other continents, lead us to infer that men had occupied all the large divisions of the globe before they accepted the rule of paternal descent. The couvade and son-in-law shyness, being later in their origin than the masculine clan, must either have arisen independently in different countries, or long after the settlement of men in them, must have been communicated from one continent to another. Of the two suppositions, that of independent origin is the more probable.

SEC. 155. *Benefits of War.*—In every branch of culture, evolution has been marked by numerous successive improvements, each growing out of older forms, and all contributing to make up the aggregate of what we under-

stand by the word progress. Each, as compared with the older forms which it superseded, was good; and each as compared with the newer forms by which it was replaced, was evil.

In one sense at least, we may say of human institutions that "whatever is, is right." The fact that an institution has existed is presumptive evidence that it supplied a want, and in so far was good. If low and seriously defective, it aided in the development of something better. Its faults were instructive; its evils suggested and stimulated efforts to find remedies; it served as a basis for improvement.

One of the most potent means, by which nature has provided for the continuous improvement of the human race in the lower stages of culture, is warfare, the most cruel of human institutions, the greatest destroyer of life and property, and in many respects the chief enemy of order and industry. It seems contrary to all the rules of moral consistency that an institution so full of evil in its motives, methods, and results, should not only be the cause of many good effects but that it should be predominantly beneficent in its results.

Blood and tears seem to count for little or nothing in the competition of life. The highest end of nature, perceptible to history or science, is the development of the human species, but in contributing to this end the majority of individuals have a very small share. In humanity, as in organic life generally, germs greatly outnumber mature individuals. Under favorable circumstances, the woman may rear a dozen children; in no country does the average woman rear four. The germ has a possibility of being, but not a right to be born, and the newly born infant has a possibility but not a right of reaching

mature life. The man has no right to a compensation for suffering. His life is subject to limitations, with which he must become familiar by the aid of pain. This warns him from danger and compels him to engage with all his might in the struggle for existence. Its compulsion is cruel. He finds little mercy in frost, fire, hunger, thirst, flood, earthquake, poisonous serpent, carnivorous beast or cannibal man. He must fight to escape plunder, torture and enslavement.

In low culture there is little mercy for those beyond the limits of a small group. Tenderness towards others would be a waste of energy; a source of weakness. Nature not only permits but compels the savage and the barbarian to fight with the cruelest weapons, with devastation, with despotism, with slavery and with massacre. To those who lay waste, and plunder, and enslave and slaughter most relentlessly,—to the Iroquois and Dakotas among the Redmen; to the Kaffirs and Dahomans of Africa; to the Assyrians and Persians of Asia, to the Romans and the Teutons of ancient Europe, destiny has given the highest success.

The struggle for life is a necessity. Germs are too numerous for space, and in one way or another, most of them must be prevented from reaching their full development and over-crowding the earth. This rule applies not less to man than to quadrupeds, birds and fishes. Since man found no brute more formidable than himself, he was compelled to fight with his own kind. War is the necessary result of the competition of tribes; one of the leading features of man's struggle for life. It exterminates or subjugates the stupid, the cowardly, the physically weak and the politically weak. It gives the best parts of the earth to the nations of superior energy, capacity, and courage.

As tillage by slaves was necessary to the development of the highest savage culture, so war was indispensable to the establishment and maintenance of slavery, and to the compulsion under which the bondsmen submitted to regular and continuous muscular exertion.¹ Such toil is extremely distasteful to the savage warrior and he has never submitted to it willingly. Military discipline supplied the means of coercion.

We can easily perceive and distinctly trace many beneficent influences of war in low culturesteps. It compelled the early savages to dwell together in groups; it established the customs and developed the tastes of social life. It exterminated those men who persisted in brutishly solitary habits, like those of anthropoid apes. It suggested the necessity of mutual protection by retaliation. It demanded the recognition of chiefs, and gave them an authority which increased as battles became more frequent and more destructive. It compelled the feminine clan to give way to the stronger organization based on masculine descent. It made an urgent demand for bronze weapons after that alloy had been produced. All through savage life, it appears as an influence potent in stimulating industry, and in giving shape to social and political institutions.

SEC. 156. *Benefits of Slavery, etc.*—Until male slaves appeared, there was no class that devoted itself to tillage that made it a study, and that obtained good crops. The large returns, which it secured, gave motives for strict supervision; under the lash, steady toil began. As the food supply increased, population became dense. Masters, relieved from the task of hunting for food, gave more time to arms. Military discipline improved, and with it political organization. As slaves increased in value, can-

nibalism decreased.¹ In many respects, slavery exerted a good influence.

Hereditary nobility, one of the indirect products of slavery, provided a body of subordinate military officials who had common interests with the despotic chief, and who had power to render him much service in peace and war. Its general influence is to strengthen his power and to make it durable. Despotism is a phase through which all the older and more intellectual nations have passed in the course of their development.

SEC. 157. *Benefits of Religion.*—If we should fix our attention exclusively on the discreditable features of savage religion, if we should remember only the unreasonableness of its dogmas, the trickery of its priests, the credulity of its worshipers, the grave offerings, the fetishes, the idols, the omens, the ordeals, the poison, the human sacrifices, the consecrated torture, cannibalism and oppression,—if we should remember only these points, we would conclude that savage religions were extremely pernicious in their influence on human life.

But we must not restrict our attention to these matters. We must consider also that the early priests used a powerful influence to enforce obligations of mutual fidelity, to establish general principles for the guidance of public and private life, to preserve social order, to enlarge the ideas and to protect the rights of property, and to strengthen the authority of the chiefs. Mainly because ecclesiasticism has rendered such services, it has been recognized in every culturestep, as a valuable police institution, and in every age and country has been supported by public opinion.

Among savages the priests are the most intellectual class. They have long instruction and strict subordina-

ation. They have advantages of training not shared by other men. They preserve traditional rules, ancient legends, and poems, and the lessons of accumulated experience. They lay down fixed principles of ecclesiastical discipline, and political government, and they defend these principles against advancing progress as well as against inconsiderate innovation. As Spencer says, ecclesiastical institutions "have been indispensable components of social structures from the beginning down to the present time."¹

The funeral, one of the first ecclesiastical observances, brings the village or the clan together in a common worship, multiplies and strengthens attachments among the villagers or clan members, and suspends or composes their quarrels. The political dominion and the ecclesiastical organization keep pace with each other, in their onward march. The religion is as extensive as the allegiance, first clannish, then tribal, then national. The devotees of the same clannish or tribal god cannot be enemies to one another; those of different gods cannot be friends. The precepts of religion became the laws of the State, as the priests became the allies of the chiefs.

The assertion that the general influence of the lowest savage religions has been beneficial, does not imply an acceptance of the doctrine that the end justifies the means, or of the still more objectionable idea that there is no difference between right and wrong, as seen from a culture-historical standpoint. It means that human nature is imperfect and progressive; that therefore the good of one culturestep becomes evil to its successor; and that savage religions are adopted as ends not as means. We must not pronounce them predominantly pernicious merely because they have ceased to harmonize with the ideas of a later age.

SEC. 158. *Uses of Evil.*—We shall not justly estimate the beneficial influences of war, slavery and religion, in early culture, unless we have a correct idea of the relation of evil in general to mankind. We are so constituted that evil is a necessity to our intellectual and moral growth. It is the basis and the source of all good. Its absolute destruction is impossible and undesirable. It is an indispensable accompaniment of a progressive life. It is our only stimulant to exertion. It is the only spur of our ambition. It is the sphere of our occupation; the field in which we develop our capacities and gain our triumphs. Without it, life would be insipid, worthless and worse than brutish; it would be merely negative. It is the conscious struggle against evil that distinguishes the animal from the plant. If the time ever could and should come for the disappearance of evil from the earth, then mankind would sit down in a repose equivalent to intellectual and moral death. Wants increase with the mental growth of humanity, but in most cases, they are slight evils; and in their main characteristics, they are the preliminaries and necessary preparations for enjoyment.

No matter how much man has, he always wants more. So it has always been; so it will ever be. His needs are insatiable. His conflict with evil is marked by successes almost infinite in number, and generally inappreciably small in their benefits and yet beneficial. The sum of his encroachments on its domain is progress. Its indestructible and universal character is the only guarantee that life shall never lose its interest; that man shall never be without employment; that toil shall ever find its reward; that idleness and stupidity shall never become dormant influences in society; that the physical forces of nature shall continue to become more and more

subject to man's dominion ; that the worst political, social and ecclesiastical abuses, inherited from the past, shall be reformed ; that crime shall diminish ; that education, science, art, truth, justice, freedom, peace, kindness, mutual helpfulness and careful regard for the feelings of others shall grow more and more potent, and that material, moral and intellectual progress, arm in arm with their congenial associate, general enjoyment, shall continue their glorious triumphal march, with speed increasing in geometrical ratio, so long as mankind shall exist.

APPENDIX.

This appendix has three main purposes: first, to assist the reader in finding information, additional to that given in the text; second, to enable him to verify statements that may appear questionable to him; and third, to give deserved credit to those authors who have rendered valuable service in reference to the history of culture.

References are made by preference, to those authors who have treated the customs and institutions of savage life comprehensively. Such are Waitz, Spencer, Lippert, Klemm, Peschel, and Wood; and of these all, save the last, have given numerous citations. When I refer to them, I refer to all their authorities.

The books which, in the scope of their information, come the nearest to this first volume, are arranged ethnologically. That is, they take up each family or tribe separately, and tell us how they live and what they think. First in comprehensiveness and merit, among such works are those of Spencer, Waitz, Klemm, Wood, and Peschel. Separate branches of culture have been treated with much learning and original thought by Spencer, Lippert, Tylor, and Lubbock. There is, however, a lack of a comprehensive history of savage culture, and this book is offered in the hope that it may aid to supply the want.

At the end of the appendix will be found a list of the books to which I refer. In the citations, abbreviations will be used. Thus Spencer P. S. means Herbert Spencer's *Principles of Sociology*; Lubbock O. C. means Lubbock's *Origin of Civilization*. In most of the citations, volumes are meant by Roman and pages by Arabic numerals, but there are some exceptions, as in citations from the Bible, from Spencer's *Principles of Sociology* and its continuations, to which reference is made by section; from Spencer's *Descriptive Sociology* and Waitz's *Anthropologie*, which the reader will understand on examination.

NOTES.

Preface.—¹Muller S. L. ii. 4. ²"The problem of history is to trace the process by which the present has been evolved from the past." Hearn, 15. ³I hope that the arrangement of my book into periods, will be found to possess some merit. Upon the importance of a correct classification of the ideas in a history of culture, the following passage from Flint (128) deserves attention: "Now, nothing can be more important, in any attempt at a philosophical delineation of the course of history, than the division into periods. That ought of itself to exhibit the plan of the development, the line and distance already traversed, and the direction of the future movement. It should be made on a single principle, so that the series of periods shall be homogeneous, but on a principle so fundamental and comprehensive, as to pervade the history not only as a whole but in each of its elements, and to be able to furnish guidance to the historian of any special development of human knowledge and life. The discovery and proof of such a principle is one of the chief services which the philosophy of history may be legitimately expected to render to the historians of science, of religion, of morality, and of art. And if it fail to render this service, that can only be because it has failed to accomplish its own distinctive and proper work,—failed to grasp and follow the thread that guides through the labyrinth of history, and allows the mind to trace in some measure, its plan and to conjecture with some degree of probability, its purpose. But failure is very possible, success very difficult. No superficial glance can detect, nor happy accident disclose, the true principle of historical division, any more than of botanical or zoölogical classification." ⁴For a history of the word *kultur* or *cultur* (culture), as used in German literature, see Klemm C. W. 37. ⁵See definition of *industrie* in Littré.

NOTES.

SEC. I. *Man's Antiquity.*—¹For evidence that man has existed on the earth for thousands of generations, see Lyell (A. M.), Geikie, Croll, Dawkins (C. H.), and Lubbock (P. T.), Ch. xii. In reference to marks of human labor found in Swiss lignite in the glacial period, see Dawkins E. M. 155. ²Darwin D. M. i. 191, Wallace D. ³Waitz i. 125, 151.

SEC. 2. *Simian Relations.*—¹Waitz i. 106. ²*Ib.* iv. 321. ³Klemm C. G. i. 285. ⁴Waitz i. 112. ⁵*Ib.* ⁶*Ib.* ⁷Spencer P. S. 25, Waitz i. 111. ⁸Peschel 80. ⁹Spencer P. S. 22. ¹⁰Dawkins C.

H. 112. ¹¹Darwin D. M. Ch. i. ¹²Waitz i. 111. ¹³*Ib.* ¹⁴Peschel 79. ¹⁵Waitz i. 111. ¹⁶Cope 286. ¹⁷Waitz i. 120. ¹⁸*Ib.* i. 110. ¹⁹The superior strength of the savage women as compared with the men, has been observed by many travelers. Kohl. (4) says that among the Chippeways, they are more muscular. Cooper (95) observes that in Polynesia, they are the best divers. Wood (i. 434) tells us they are the best swimmers in the Pacific islands and the West Indies. Emin Pasha (229) remarks that in Central Africa, they carry heavier burdens. Livingstone (L. J. 196) considered them the best porters in South Africa. Similar testimony comes from Burton (G. L. 214), Du Chaillu (E. A., 76). Mohr (213), Houghton (100, 322), and Ernouf (270).

In reference to the early decay of savage women, see Catlin i. 121; Dodge O. W. I. 146; Cremony 46; Bonwick D. L. 85; Emin Pasha 95, 117. Berthet 482. Livingstone S. A. 142, F. Muller 98.

As to the physical peculiarities of different races, one of the best authorities is Quatrefages.

SEC. 3. *Size*.—¹Hartman 65, Emin Pasha 3, 316. ²Spencer P. S. 26. ³*Ib.* ⁴*Ib.* ⁵*Ib.* ⁶*Ib.* ⁷*Ib.* ⁸*Ib.*

SEC. 4. *Acute Senses*.—¹Melville T. 78, Wood ii. 208, Bowring 135. ²Lippert K. G. i. 73. ³Chapman i. 400.

SEC. 5. *Vitality*.—¹An Indian on horseback, shot at the junction of the pelvis and thigh, breaking both bones, rode one hundred miles; a white man would have fallen at once from the horse and never moved. Dodge H. G. 339. The Mexican Indian "recovers easily from wounds that would kill any European outright." Tylor Anahuac 48; Cremony 257. ²Waitz i. 141. ³*Ib.* 142. ⁴*Ib.* ⁵Monteiro i. 72. For the insensibility of the North American Indians to pain, see Klemm i. 264; for Alaskans, Lisiansky 242; for Patagonians, Guinnard 75; for Polynesians, Cooper i. 194; for Australians, Latham V. M. 243; for Bechuanas, Wood i. 325; for Damaras, *Ib.* 340; for Guiana, *Ib.* ii. 616. Pickering (64) says Polynesians never took cold till they began to wear clothes; and Keller (89) says of the aborigines on the bank of the Amazon, "Bathing in the river immediately after meals is a luxury invariably indulged by all the Indians, and I never remarked that it was attended by any evil consequences to them." ⁶Winchell 178. ⁷Domenech ii. 295. ⁸Spencer P. S. i. 29. ⁹Baegert Ch. vii.

SEC. 6. *Habits*.—¹Waitz vi. 729; Wood i. 256. ²Cook ii. 61. Melville T. 257. ³James 92. ⁴Scherzer iii. 414.

SEC. 7. *Savagism Disappearing*.—¹For the decrease of the aborigines in South America and the West Indies, see Waitz iii. 399, 449; iv. 332, 337; in the basins of the Amazon and Madeira Rivers, Keller 5, 11, Orton 316; for Arowaks and Caribs, Waitz iii. 300; for Patagonia, Guinnard 133; for Dutch Guiana, Palgrave D. G. 82; Brett 496; for North America, Annual Report of the Smithsonian Institute for 1884-5, ii. 882, 908, 912; for California, Overland Monthly, June 1888; for Alaska under Russia, Waitz iii. 373; for Labrador, Hind i. 85; for Mosquito Coast, Squier C. A. 231; for Eskimos, Spencer D. S. vi. 1; for Equatorial Africa, Du Chaillu E. A. 41, 435, Burton G. L. 77; for Polynesia, Scherzer iii. 138, 225; Ellis P. R. i. 106; Waitz i. 180; for Hawaii, Kalakaua 23; for Lavavai, Moerenhout i. 143; for Fiji, Cumming L. C. 32; for Australia, Fison and Howitt 182; for South Australia, Forster S. A. 426; and for all savage countries, Quatrefages 419, 428. ²Ballou 32. ³Green 77. ⁴Commissioners of U. S. Indian affairs, Report for 1872. ⁵Waitz v. 149, 162. ⁶*Id.* i. 455; Melville O. 239. Prichard H. M. ii. 611. ⁷Dodge W. I. 295; *Pop. Sci. Monthly*, June, 1886. ⁸Livingstone L. J. 42.

Gerland (Waitz vi. 828) accuses the British Colonists in Australia of slaughtering the aborigines. The following passage is part of his denunciation: "The Australians are destined to disappear as a race—at least all in the neighborhood of the English colonies. They owe their destruction not to their own rudeness and incapacity for improvement, but to English civilization, which is pervaded not by benevolence but by the meanest and hardest greed, using refinement as a cloak, while leaving the ignorant aborigines without help, to fall into deeper demoralization. This is the answer to the doubts which Wallace felt in regard to European culture when he compared the friendly and honest intercourse of the natives in the market of Dobbo with the strife and trickery of Europeans. Those natives were rude but not debased; we are debased but not rude. The soil on which the oft and loudly praised prosperity of the colonies blooms has been manured with blood and the blackest crimes. The future belongs to them. History knows no law of moral retaliation, least of all in reference to the slaughtered colored man."

Gerland has never been in Australia; Anthony Trollope, who was there, and is a man of close observation and good judgment, justifies the British colonists for their general policy (A. N. Z. i. 74). He says the Australians cannot be civilized (C. 70, ii. 85).

Foster entertains the same opinion of them (S. A. 423). Hornaday (443), who had excellent opportunities to observe some of the Pacific islanders, says that to civilize is to exterminate them. Cremony (193) thinks the Apaches will never accept civilization.

Mrs. H. H. Jackson's *Century of Dishonor* is a complaint of four hundred printed pages against the government and people of the United States for the manner in which they have treated the aborigines. She spent much time and labor in collecting her material, and she cites many authorities to sustain her accusations of gross and systematic bad faith and cruelty. Not having investigated her evidence carefully, I will not venture to assert that she is wrong; but I do say that I have no confidence in her statement or conclusion. I have had occasion to examine her novel *Ramona*, written to give what she believed to be a true picture of the culture and the wrongs of the Mission Indians of California, and I found that I could not trust her, as to questions of either fact or law. Some of the reasons for my distrust are given in the *Overland Monthly*, June, 1888. That many and great wrongs have been done to the Indians in the United States by the whites is admitted by all competent judges who have lived near the aborigines, but many and great, and probably more and greater wrongs have been done by the Redmen.

The aborigines of Australia die of consumption when they are brought up in houses (Forster 420) as do those of California. *Overland Monthly*, June, 1888.

SEC. 8. *Savage History*.—The statement here made that "every savage tribe has remained, through its whole known career, in the same or nearly the same culturestep," should have been qualified so as to make it harmonize completely with the mention in section 12 of the rise of some Malays from savagism to barbarism. It is true, for the last four centuries, of all savage communities whose history is well known to us and which have not been influenced by a large admixture of alien blood.

SEC. 9. *Races*.—Klemm (C. G. i. 198) divides mankind into two races, the active and the passive. The active or white comprises the Aryans and Semites; the passive or colored comprises all others. For the former he claims strong will, mental activity, investigating disposition, fondness for innovation, boldness in navigation and migration, readiness to overthrow old governments and establish new ones, ambition to secure freedom for themselves while subjecting others to bondage, and capacity to carry science,

philosophy and general culture to their highest forms. The passive race is, according to him, stationary in population, dull in mind, and content with inherited ideas and institutions.

Klemm's classification has found little favor, and after forcible criticism it is rejected by Waitz i. 259, 387, 394. Latham, whom I follow, has three races, white, yellow and black. Pickering, a high authority, has four, white, brown, blackish brown and black. Blumenbach has five, Caucasian or white, Mongolian or yellow, Ethiopian or black, American or red and Malay or brown. Pritchard and Peschel have seven, and several other authorities have larger numbers.

I attach little value to the classification of races on the basis of the shape of the skull. The dolichocephalic and the brachycephalic forms are found in every ethnological family, as individual variations, and they are therefore very unsafe tests of race distinction. The Scandinavians generally have long heads and Slavonians broad heads, and yet both are Aryan.

Language is not a safe basis for classifying tribes in every case. For the number of languages see Waitz i. 279.

The best ethnological maps known to me are those in Waitz, the Iconographic Encyclopedia and Bastian.

SEC. 10. *Australians, etc.*—Good authorities in reference to all of the ethnological families are Waitz, Wood, Klemm, Peschel and Spencer, D. S.

SEC. 11. *Negroes, etc.*—Featherman has collected much information about the Nigritians as he terms them.

SEC. 12. *Malays, etc.*—¹Fornander claims that in blood and fundamental features of language the Polynesians belong to the Aryan family. ²For similarity of Hovas to Polynesians in customs see Waitz i. 432.

SEC. 13. *Polynesians.*—¹Waitz vi. 339. Of the Tahitians Lubbock (P. T. 469) says. "They may be taken as representing the highest stage in civilization to which man has in any country raised himself before the discovery or introduction of metallic implements." This statement should be qualified by the addition "in modern times." The Swiss lake dwellers in the stone culturestep had herds and pottery, unknown to the Tahitians, and were therefore superior to them.

SEC. 14. *Redmen.*—¹Latham V. M. 356. Bancroft iii. 553. The tongue of the Otomis in Mexico is monosyllabic, and is unlike any other in America. Bancroft iii. 737. ²Waitz iii. 57. ³*Ib.* i. 292.

SEC. 15. *Mound-Builders*.—¹Maclean M. B. 15. Something further about the works of the Mound-Builders may be found in the sections relating to fortifications and temples. The chief authorities in reference to the Mound-Builders are Maclean, Carr, Carr and Shaler, Jones, Lapham, Foster, and Squier and Davis. Lubbock P. T. Ch. viii. gives a good summary of the information. The Buraets of Siberia have hearths of beaten clay, similar to those found in the American mounds. Lubbock P. T. Ch. viii. Carr (M. M. V. 298) made a calculation that a Redman, with such tools as he had before the appearance of the white men in America, could, in one day, dig and carry a cubic yard of earth far enough for the construction of a mound 13 feet high and 40 feet in diameter. Such a mound contains 231 cubic yards and could be raised by one man in 231 days. Jones (170) thinks that 75 yards would be a year's work for an Indian.

No cast copper in America north of Mexico. Jones, 47. The Mound-Builders, the same in culture and blood as the Georgia Indians in the XVIth century. Jones 135. Lapham 25, 26, 29.

SEC. 16. *Aleut Mounds*.—¹Dall N. W. 51. ²*Ib.* ³*Ib.* 55. ⁴*Ib.* 81. ⁵*Ib.* 66, 70. ⁶*Ib.* 80. In a private letter to me, M. Dall says, "With blazing volcanoes all along the archipelago, they [the Aleuts] could not but have known of fire, whether they used it or not."

SEC. 17. *Pleistocene Europeans*.—¹Dawkins E. M. 155. ²Whitney. ³Dawkins E. M. 205. Lippert K. G. i. 334. ⁴Dawkins C. H. 341. ⁵*Ib.* E. M. 221, 222.

Summaries of the information about the Pleistocene Europeans will be found in Dawkins C. H. and E. M., Lubbock P. T., Lyell A. M. Ch. x. and Stevens.

As to shell mounds generally, see Stevens 193, 197.

SEC. 18. *Danish Mounds*.—¹Lyell 8-17.

Good summaries of the information about the Danish mounds may be found in Lyell A. M. Ch. ii. and in Lubbock P. T.

SEC. 19. *Swiss Lake Dwellings*.—The chief authorities are Keller, Lubbock P. T., Dawkins E. M. and Lyell A. M. Ch. ii.

SEC. 20. *Fire*.—¹The question whether any tribe, in modern times, has been ignorant of fire, has been discussed by Tylor P. C. Ch. ix., Lubbock P. T. Ch. xvi. and Lippert K. G. i. 513. ²Lubbock P. T. Ch. xiii. ³Lippert K. G. i. 279. ⁴As to kindling apparatus, see engravings in Tylor E. H. Ch. ix. and July 191. Flint and pyrites used to strike fire in Swiss lake dwellings. July 179.

Volcanic fumaroles on the Solomon Islands are used now for

cooking (Guppy, 86); as are solfataras and boiling springs in many countries.

SEC. 21. *Non-tilling Culture*.—¹For descriptions of the methods of making flint knives, with illustrative engravings, see Lubbock P. J. Ch. iv., Evans, and Carr and Shaler. ²Numerous prehistoric flint mines have been found near Brandon, England; where one of the shafts is thirty feet deep. A mine of chert, with a shaft six feet deep, in Licking County, Ohio, supplied material for knives and arrowheads to the Redmen in the vicinity.

The words palæolithic and neolithic were first used by Lubbock P. J. 2.

For list of stone implements in the museums of Copenhagen and Stockholm, see Lubbock P. T. 16.

For evidences of a time when the best edge tools were of stone in many countries, see Tylor E. H. Ch. viii. Sayce A. E. E. 2.

SEC. 22. *Tilling Savagism*.—Marsh, in his *Earth as modified by Man*, accepts Gomara's statement that the buffalo had been tamed in part of North America; but we are now familiar with all portions of the continent in which the buffalo could live, and there is no trace of its domestication anywhere. There is no reason to believe that Gomara had any good evidence for his assertion.

SEC. 23. *Spear, Bows, etc.*—¹For description and engraving of the spear-sling see Wood ii. 29, 206. Bonwick D. L. 43. ²For description of the throw-stick and the method of using it, with illustrative engravings, see Wood ii. 43, 706, 709. ³Waitz iii. 308. ⁴Joly 232. ⁵Bougainville says the bolas are effective at a distance of 300 yards, but this is evidently a mistake for 300 feet. Darwin (J. R. Ch. iv.) says they can be thrown effectively 180 feet by a man on foot, and 240 feet by a man on horseback, in the latter case being aided by his greater elevation and the impetus of the running horse. ⁶Klemm C. G. ii. 17.

Methods of poisoning weapons. Stevens 259-263.

Method of giving toughness to brittle wood intended for bows. Powers 373.

Method of making arrowheads. Stevens 77-85. Powers 374. Twenty arrows shot in a minute. Catlin i. 32.

Distribution of stone implements. Stevens 113-118, 187-192.

SEC. 24. *Clubs, etc.*—¹Tylor E. H. 205. ²Wood i. 255. ³Bancroft i. 361. ⁴Bourke S. D. M. 250. ⁵Baker N. T. 511. Scherzer iii. 31. ⁷Lippert K. G. i. 302.

For description of the Dakota shield and method of making it, Catlin i. 241.

Madras Hill tribes have boomerang. Hunter 82.

Engravings of Hawaiian weapons. Kalakaua 13.

SEC. 25. *Omnivorous*.—The supposition that man is naturally a vegetarian does not find the least support in the customs of savages. No tribe abstains willingly from animal food. The Chimpanzee is carnivorous and herbivorous. Romanes 368.

Intense desire for fat after restriction to lean meat, Darwin J. R. Ch. vi.

SEC. 26. *Bread and Meat*.—¹Jones 135. Herndon 76. Evans 224.

Wild lettuce flavored by ants. Powers 425.

SEC. 27. *Daintiness*.—¹Bancroft i. 55. Guppy 92. Livingstone L. J. 394.

SEC. 28. *Salt and Clay*.—¹Waitz iii. 431. Clark 325. Catlin i. 24.

SEC. 29. *Cannibalism*.—¹Wood i. 272. ²Dodge H. G. 419. ³Bancroft i. 490. ⁴Brooke i. 209. Pickering 304. ⁵In regard to the wide prevalence of cannibalism, see Lippert K. G. ii. 279, and Andrée 2-5. As to its existence in prehistoric times, see Geikie 377. Bunyabunya cannibalism Trollope 66. ⁶Powell 129. ⁷Lubbock P. J. Ch. xiii. ⁸Romilly 58, 59. ⁹Lippert K. G. i. 248.

SEC. 30. *Cooking*.—¹Authority lost. ²Waitz vi. 53. ³Lippert K. G. i. 359. ⁴Harris 16. ⁵Dall T. E. N. 81. ⁶Wilkes v. 95. ⁷Authority lost. ⁸Clark 115. ⁹Livingstone Z. 143. ¹⁰Catlin i. 124, Kane 78, Clark 219, Waitz ii. 443. ¹¹Kohl. 319. ¹²*Ib.* ¹³*Ib.* 320. ¹⁴Beechey ii. 399. ¹⁵Wood ii. 148, Fletcher and Kidder 188, 189. ¹⁶Livingstone L. J. 93. ¹⁷Thomson A. L. i. 157. ¹⁸Hooker 342. ¹⁹Powell 20. ²⁰Melville O. 338. ²¹Guppy 90.

How green maize is preserved. Kohl. 300.

How arrowroot is prepared. Pickering 326.

Method of making acorn bread. Powers 150, 187.

Description of bamboo boiling pot. Low. 37.

SEC. 31. *Meals*.—The Kaffir has only one regular meal daily, an hour before bedtime. The only nourishment taken at other times is sour milk. Muller 189.

SEC. 32. *Grinding*.—¹Lippert K. G. i. 292. ²*Ib.* ³Schweinfurth ii. 424. Parkyns i. 307.

SEC. 33. *Water and Milk*.—¹Wood i. 103, ii. 208. Spencer D. S. iv. 43. ²Livingstone S. A. 59, ³Wood i. 147. ⁴Lippert K. G. i. 538.

SEC. 34. *Beer, etc.*—¹Parkyns ii. 341. ²Gibbon 307. ³Spencer D. S. iii. 3. Emin Pasha 207. ⁴Cumming H. F. 51. ⁵Cumming L. C. i. 90. ⁶*Pop. Sci. Monthly*, Dec. 1886, 209; St. Johnston 39; Barnes 49, 192.

SEC. 35. *Narcotics.*—Burton (L. R. 65) says that every man in Ujiji carries "a diminutive pot . . . nearly full of tobacco; when inclined to indulge, he fills it with water, expresses the juice, and from the palm of his hand, snuffs it up into his nostrils," which he then closes with his fingers, or with pincers, for a few seconds. ²Catlin i. 234. ³Tennent i. 114. Guppy (95) tried the betel and found nothing in it to praise. ⁴Humboldt Ch. xxiv. ⁵Waitz v. 183. ⁶Klemm C. G. i. 111. ⁷Humboldt Ch. ix. ⁸*Ib.* Ch. xxiv. ⁹Featherman i. 368. ¹⁰Herndon 388. ¹¹Klemm C. G. i. 111. ¹²Waitz iii. 312. ¹³Harris 323. ¹⁴Waitz iii. 473. ¹⁵Lippert K. G. i. 625. ¹⁶Latham 286. ¹⁷Bourke O. R. ¹⁸Baker C. 250.

On the method and effects of opium of smoking in Sind, see Burton S. R. ii. 121.

SEC. 36. *Hunting.*—¹Catlin i, 25, 76, 199. ²*Ib.* 253. ³Dall M. L. 107. ⁴Baker i. 455. ⁵Irving A. A. 259. ⁶Emin Pasha.

Nearly all the wants of 300,000 Redmen were supplied by the buffalo. Catlin i. 262.

SEC. 37. *Birds.*—¹Kane 234. ²Pickering 18. ³Bancroft i. 376. ⁴Tylor E. H. 172. ⁵*Ib.* ⁶Kane 58. ⁷Wood ii. 337. ⁸Hittell i. 265. ⁹Spencer D. S. iii. 3. Wood ii. 428.

Tame frigate bird taught to fly down at bait and thus entice wild birds into the net. Forbes 33.

Australians stretch a net across a gap, in a route taken by ducks, hide near it, and when ducks come along, flying above the net, throw a whirling boomerang above them, and imitate the cry of a hawk, whereupon the ducks, in their fright, fly into the net and are taken. Wood ii. 102.

SEC. 38. *Fishing.*—¹"The patent harpoon, almost universally used by the American whalers, in lieu of the old-fashioned article, is a copy in steel of bone and slate weapon which the Innuït [Eskimos] have used for centuries." Dall. N. W. i. 9. ²Kohl. 330. ³Kane 213. ⁴Bancroft i. 162. ⁵Wood ii. 594. ⁶Waitz vi. 728. ⁷Wood i. 699. ⁸Spencer D. S. iii. 57. ⁹Jones 336. ¹⁰*Ib.* 545. ¹¹Powell 174. ¹²Lubbock P. T. 450. Baegert Ch. iii. ¹³Romilly 133. Guppy 157. ¹⁴Wood ii. 364. ¹⁵*Pop. Sci. Monthly*, Dec. 1886, 204. ¹⁶Powell 275. ¹⁷*Ib.* 206. ¹⁸Ballou 105. ¹⁹Reference lost. ²⁰Jones 327. Pickering 88. ²¹Kane 254. ²²Low. 237.

Modes of fishing. Barnes 65, 149. Guppy 151.

Turtle killed by vertical arrow. Herndon 86.

SEC. 39. *Bees*.—¹Tylor E. H. 180.

SEC. 40. *Villages*.—¹Catlin i. 43, 44. ²Dawson 38. ³Waitz v. 71.

SEC. 41. *Huts, etc.*—¹Lubbock P. J. 450. ²Wood ii. 20. ³Fremont 212, Irving B. A. 259. ⁴Pickering 30. ⁵Stanley D. C. i. 385, 489. Waitz ii. 80. ⁶Kohl. 9. ⁷Catlin i. 81, Clark 373. ⁸Author's observation. ⁹Stanley D. C. i. 432. ¹⁰Dawkins E. M. 267. ¹¹Lippert K. G. ii. 204. ¹²Bancroft i. 427. ¹³Latham 285. Nordenskiöld 466. ¹⁴Spencer D. L. v. 42. ¹⁵Morgan H. 71.

No huts in portions of Malaysia. Pickering 304, 305, 306. Scherzer iii. 294. In Shanar, district of Hindostan, Leonowens 153. Among Veddahs, Baker C. 102, 104. Among Port Jackson Australians, Klemm C. G. i. 299.

SEC. 42. *Furniture*.—¹Featherman 393. ²*Id.* 560. ³Cameron II, 145, Baker C. 254. ⁴Lafitau ii. 61. ⁵Lippert K. G. i. 328. The numerous uses of bamboo. Thomson S. M. 318.

SEC. 43. *Baskets and Mats*.—¹Kane 210.

In reference to the baskets and mats of savages, see also Waitz iii. 93 534. Wood i. 22. Klemm C. G. ii. 349. Tylor E. H. 192. Bancroft i. 165 179. Foster 225, 229. Schweinfurth i. 102. Burton L. R. ii. 64. Royer 429. Kohl. 10.

SEC. 44. *Dogs*.—¹Galton H. F. 246, 247. ²Waitz iii. 83. ³Galton 108, 218, 250, 252. ⁴Waitz iii. 394. ⁵Spencer D. S. iv. 58, 59. ⁶Galton 252. ⁷*Id.* ⁸Bonwick D. L. 222. ⁹Lippert K. G. i. 491. ¹⁰Pickering 108. Baegert's silence about the dog suggests that it did not exist there. ¹¹Lippert i. 544.

Among the queerest pets are pythons large enough to kill and swallow goats or kids. Such serpents are petted by African women, who rub them with fat and pour fat down their throats. The pythons learn to spare tame animals, and go into the forest for wild game. Emin Pasha 339.

SEC. 45. *Pigs, etc.*—¹Pickering 76. Lippert K. G. i. 553.

SEC. 46. *Tillage*.—¹J. G. Muller 17, Morgan A. S. 25. ²Lafitau ii. 77. ³Peschel 155, 428. ⁴Letourneau 21. ⁵Icon. Encyclopedia i. 64. ⁶Waitz ii. 432. ⁷Herndon 88. ⁸Waitz ii. 82, 83.

SEC. 47. *Implements, etc.*—¹Lubbock P. T. 463. Waitz ii. 82, 83.

SEC. 48. *Milk-yielders*.—¹Peschel 425. ²Lubbock was the first

to call attention to the value of the milk-yielding animals in reducing the drain of lactation on women. Lippert K. G. i. 243. ³ Lippert K. G. i. 539. ⁴ Waitz ii. 83. ⁵ Lippert K. G. i. 509. ⁶ *Ib.* 507.

SEC. 49. *Boats*.—¹ Worsaae 13. ² Lubbock P. T. 450, O. C. 507. ³ Powers 47. ⁴ Tylor E. H. 210. ⁵ Bancroft i. 166. ⁶ Brett 267. ⁷ Burton L. R. 411. ⁸ Cook i. 267. ⁹ For full description of method of making birch bark canoes, see Kohl. 9, and *Harper's Magazine*, August, 1888. ¹⁰ Waitz vi. 65. ¹¹ Powers 215. ¹² The skin boats of the Eskimos are elaborately described by Klemm C. G. ii. 274. ¹³ Pickering 76. ¹⁴ Ellis P. R. i. 383. ¹⁵ Waitz vi. 644. ¹⁶ Tennent i. 327. ¹⁷ Spencer D. S. iv. 33.

Tahitian boat building. Stevens 69.

SEC. 50. *Pottery*.—¹ Tylor E. H. 271. ² Lubbock P. T. 494. ³ Tylor E. H. 274. ⁴ Peschel 168. ⁵ Spencer D. S. xlv. 5. ⁶ Wood i. 55. ⁷ Klemm ii. 66. ⁸ Foster 246. Keller L. D. 143, 220. ⁹ Lippert K. G. i. 325. Tylor E. H. 273. Dall T. E. N. 80. Joly, 307.

SEC. 51. *Thread, Cloth, etc.*—¹ Burton L. R. ii. 64. Schweinfurth i. 102, Waitz, iii. 93, 534, Bancroft i. 165, 179, Foster 225, 229, Wood i. 22, Klemm C. G. ii. 349, Jones 61, Tylor E. H. 192, Kane 184, 210, Emin Pasha 517, Gibbon 211, Keller A. M. 86.

SEC. 52. *Leather*.—¹ Catlin i. 45, Clark 371, Stevens 550, Waitz iii. 96. ² Guinnard 75. ³ Parkyns ii. 14. ⁴ Nordenskiöld 480. ⁵ Baker N. T. 181, Emin Pasha 236. ⁶ La Pérouse, ii, 41.

SEC. 63. *Traffic*.—¹ Burton G. L. ii. 20. ² Romilly 24. ³ Bancroft i. 347, Spencer P. S. 256.

SEC. 54. *Metals*.—Maclean (M. B. 87) and Foster (252, 256) think some of the copper ornaments and weapons of the North American Indians were cast, but the preponderance of evidence and authority is against them. The articles supposed to have been cast are so small and rude that the method in which they were formed cannot be determined. They are few and of little industrial value. No moulds, no solid rings, no articles not producible by hammering have been found. See Annual Report Smithsonian Institute for 1884-5, 71.

SEC. 56. *Industrial Development*.—¹ Lyell A. M. ² Tylor E. H. 187. ³ *Ib.* 188. ⁴ *Ib.*

SEC. 57. *Natural Progress*.—When a Bechuana first saw a ship he said "that certainly was never made by man." Waitz i. 457.

SEC. 58. *Promiscuous Group*.—¹Morgan A. S. 364. ²Lubbock O. C. Ch. iii. ³Peschel 232. Morgan A. S. 413. ⁴Lubbock O. C. Ch. iii. ⁵Morgan A. S. 430. ⁶Lippert K. G. ii. 13. ⁷*Ib.* 15. Palgrave E. A. i. 10. ⁸Lippert K. G. ii. 17. ⁹*Ib.* 15, 2 Kings xvii. 30. Lippert K. G. ii. 16.

The following tradition was found in Australia by Fison and Howitt (25): "After the creation, brothers, sisters and others of the closest kin, intermarried promiscuously until—the evil effects of these alliances becoming manifest—a council of chiefs was assembled to consider in what way they might be averted, the result of their deliberations being a petition to the Muramurā (Good Spirit), in answer to which he ordered that the tribe should be divided into branches and distinguished one from another by different names, after objects animate and inanimate, such as dogs, mice, emu, rain, iguana, and so forth; the members of any such branch not to intermarry but for one branch to mingle with another."

Since the Australians, previous to their familiarity with the white men, had neither a good spirit controlling human affairs, nor chiefs possessing much authority, we must suspect that this tradition, in the shape here given to it, is of modern origin. Its chief value lies in the recognition of the promiscuous group.

According to the ancient rule of Hawaii (Kalakaua 53) the highest rank was that of the reigning chief; second, his children by his sister; third, his children by his niece (presumably his sister's daughter); fourth, his children by his own daughter; fifth, his children by other women. This rule seems to be a remnant of the promiscuous group.

The chief authorities on the promiscuous group are Morgan A. S. and S. C.; Lippert K. G. and G. F.; Lubbock O. C. and Spencer P. S. Bachofen, who was the first to call attention to the subject, has little to interest readers who are familiar with later writers, such as Lubbock and Lippert.

SEC. 59. *Relationship Nomenclature*.—The following table compiled from Lubbock, who compiled from Morgan, is designed to show as briefly and simply as possible the progressive character of the systems of nomenclature in reference to a few collateral relationships. Some of Morgan's terms, copied by Lubbock, are here changed. Thus for male parent, father is substituted; for female parent, mother; for male child, son; for great or little father, uncle, and for little mother, aunt. The simple English word is used to convey the meaning of a phrase which might confuse the reader.

The abbreviations in the table are fa for father; mo for mother; br for brother; so for son; co for cousin; un for uncle; an for aunt; np for nephew; m s for male speaking; and f s for female speaking.

COLLATERAL RELATIONSHIP.	Hawai.	Mohawk.	Micwac.	Burma.	Wyandot.	Karen.
Mother's brother.....	fa	un	un	un	un	un
Mother's brother's son.....	br	br	br	br	co	co
Father's sister.....	mo	mo	an	an	an	an
Father's sister's son.....	br	br	br	br	co	co
Father's brother.....	fa	fa	un	un	fa	un
Father's brother's son.....	br	br	br	br	br	co
Mother's sister.....	mo	mo	an	an	mo	an
Mother's sister's son.....	br	br	br	br	br	co
Brother's son, m. s.....	so	so	so	np	so	np
Brother's son, f. s.....	so	so	np	np	np	np
Sister's son, m. s.....	so	np	np	np	np	np
Sister's son, f. s.....	so	so	so	np	so	np

A table compiled by Lubbock to show the titles given in five successive stages of the natural development of relationship nomenclature to the father's sister, her son, her son's son, and her son's son's son, is here presented slightly modified:—

RELATIVES.	Father's sister.	Her son.	Her grandson.	Her great-grandson.
Stage I.....	mother	brother	son	grandson
Stage II.....	aunt	brother	son	grandson
Stage III.....	aunt	brother	nephew	grandson
Stage IV.....	aunt	cousin	nephew	grandson
Stage V.....	aunt	cousin	aunt's grandson	aunt's great-grandson

In the first stage, we have the titles of the Hawaiians and Mohawks; in the second, those of the Micwacs; in the third, those of the Burmese; in the fourth, that of the Fijians; and in the fifth, that of the modern Euraryans. The comparison of these five stages proves the derivation of the family, as constituted now in civilized society, from the consanguine group. If the change had been in the contrary direction, we should have had systems of nomenclature like those on the following table from Lubbock (O. C. 199).

RELATIVES.	Father's sister.	Her son.	Her grandson.	Her great-grandson.
Stage I.....	aunt	cousin	aunt's grandson	aunt's great-grandson
Stage II.....	mother	cousin	aunt's grandson	aunt's great-grandson
Stage III.....	mother	brother	aunt's grandson	aunt's great-grandson
Stage IV.....	mother	brother	nephew	aunt's great-grandson
Stage V.....	mother	brother	son	grandson

The first and last of these stages are found in modern tribes, but the first instead of being found among the lowest savages is among civilized people, and the last instead of being among the highest in

culture is among the lowest. The second, third and fourth, which should have been the connecting links in the march of retrogression, are not found anywhere.

If the matrimonial system had changed from strict monogamy among primitive savages to the loose relations found in low culture by many modern observers, we should find the title of father given to the mother's brother, with that of cousin to his son. But such a combination is not to be found anywhere in the world. The change must have been made then in the other direction.

SEC. 60. *Feminine Clan*.—¹Morgan A. S. 149.

The chief authority on the feminine clan is Morgan, who first called attention to it, discovered its wide prevalence, and collected a great mass of evidence to prove its extensive prevalence among savages. His leading work on the subject is *Ancient Society*. Other works worthy of attention are Lubbock's *Origin of Civilization*, which gives a good summary of Morgan's ideas, Starcke's *Primitive Family*, and Lippert's *Kulturgeschichte* and *Geschichte der Familie*.

SEC. 61. *Totem*.—¹Morgan A. S. 161. ²*Ib.* 168.

On this subject Morgan is the leading authority.

SEC. 62. *Australian Exogamy*.—¹Fison and Howitt 36.

The highest authority is Fison and Howitt's *Kamilaroi*.

The following expression of opinion by Spencer (P. S. 50) deserves consideration, though I am convinced it is unsound. The "complex system of [Australian] relationships and consequent interdicts on marriage, . . . could not possibly have been framed by any agreement among them, as they now exist, but . . . are comprehensible as having survived from a state in which these tribes were more closely united, and subordinate to some common rule. Such also is the implication of circumcision and the knocking out of teeth, which we find among them as among other races now in the lowest stages. For when we come hereafter to deal with bodily mutilations we shall see that they all imply a subordination, political or ecclesiastical or both, such as these races do not now exhibit." To me, it is clear that the exogamous system of Australia was an offshoot of its feminine clans, which could not have arisen or prospered under a strong political or ecclesiastical dominion. I deny that bodily mutilations imply an extensive subordination.

SEC. 63. *Feminine Clan Survivals*.—¹Reade 208. ²Low 265.

³Lippert K. G. ii. 58. ⁴*Ib.* 61. ⁵*Ib.* 58. ⁶Lubbock O. C. 147.

⁷Lippert K. G. ii. 57. ⁸*Ib.* ⁹*Ib.* 58. ¹⁰*Ib.* 57. ¹¹*Ib.* 59. ¹²*Ib.* 38. Waitz vi. 654. ¹³Featherman 411. ¹⁴*Ib.* 469. ¹⁵*Ib.* 418. ¹⁶Waitz v. 107. ¹⁷Lippert K. G. ii. 48. ¹⁸*Ib.* 56. ¹⁹Ezek xxii. 2. ²⁰Gen. xxiv. 53. ²¹Judges viii. 19. ²²Smith 119.

The Waswahili woman owns the home, divorces her husband whenever she sees fit, and seldom waits long before she takes another. Such changes are not rare. New. 12, 67.

In Balonda land, the wife owns the dwelling; the husband moves to her village; he can make no contract without the wife's approval; he must supply his mother-in-law with fire-wood so long as she lives, and he must work in the fields.

The leading authorities on the subject of this section are the same as those in the feminine clan, and in addition to them W. Robertson Smith's *Kinship and Marriage in Early Arabia*, and Wilken's *Matriarchat bei den Arabern*.

SEC. 64. *Masculine Clan*.—In reference to the masculine clan, see Morgan A. S. 155-174 and 362-364; and Fison and Howitt 241, 242, 274. The leading authorities are the same as for the feminine clan.

SEC. 65. *Capture*.—¹Lubbock O. C. 112, 115, 124. Wood ii. 556. Featherman, 422. McLennan A. H. 18-80.

Sir George Grey, as quoted by McLennan (60) says: "The life of a young woman at all celebrated for beauty [in Australia] is generally one continued series of captivity to different masters, of ghastly wounds, of wanderings in strange families, of rapid flights, of bad treatment from other females, among whom she is brought a stranger by her captor; and rarely do you see a form of unusual grace and elegance, but it is marked and scarred by the furrows of old wounds, and many a female thus wanders several hundred miles from the home of her infancy, being carried off successively to distant and more distant points."

F. McLennan (*Studies in Ancient History*) is the author who has given most prominence to the system of capture in early matrimony, and after him Lubbock O. C. Lubbock does not go so far as McLennan.

SEC. 66. *Polyandry*.—¹Spencer P. S. 297-303, Latham D. E. ii. 463. ²Hutchinson 63. ³Lubbock O. C. 101. Featherman 446, Waitz v. 106. The best authority on polyandry in Thibet is A. Wilson Ch. xxiv.

SEC. 67. *Polygyny*.—¹Lippert K. G. i. 76, Waitz i. 120, 135, ii. 120, iii. 108, Buckle P. W. iii. 39, Burton G. L. i. 78, 79 ii. 215, Johnston 425, Seeman 191, Reade 205, Bonwick D. L. 76, Seeman i. 136,

Dodge H. G. 313, Livingstone L. J. 55, Gray 185. ² Baker N. T. 263.

SEC. 68. *Girl's Position*.—¹ Waitz vi. 123. ² Spencer D. S. iv. 47. ³ Featherman 733. ⁴ *Ib.* 440, Lubbock O. C. Ch. iii. Waitz i. 108, Spencer D. S. iv. 27.

SEC. 69. *Wife's Position*.—¹ Reade 309. ² Waitz ii. 433, Spencer P. S. 280, Du Chaillu E. A. 197, 265.

Malthus (i. 39) observes that "one of the general characteristics of the savage is to despise and degrade the female sex. Among most of the tribes in America, their condition is so peculiarly grievous that servitude is a name too mild to describe their wretched state. A wife is no better than a beast of burden. While the man passes his days in idleness or amusement, the woman is condemned to incessant toil. Tasks are imposed upon her without mercy, and services are received without complacency or gratitude. There are some districts in America where this state of degradation has been so severely felt that mothers have destroyed their female infants to deliver them at once from a life in which they were bound to such a miserable slavery."

SEC. 70. *Marriage, etc.*—¹ Ellis P. R. i. 271. ² Waitz iii. 105. ³ Spence D. S. iii. 2. ⁴ Bancroft i. 437. ⁵ Parkman Preface. ⁶ Waitz i. 114. ⁷ Cook ii. 220. ⁸ Lubbock O. C. 55, Spencer P. S. 280, Harris 247. ⁹ Burckhardt B. W. 64. ¹⁰ Wilken 24. ¹¹ Du Chaillu E. A. 118. ¹² Lubbock O. C. 55, Hunter 77. ¹³ Spencer D. L. v. 42.

SEC. 71. *Brother Adoption*.—The chief authority is Trumbull, who gives many citations.

SEC. 72. *Couvade*.—¹ Lubbock O. C. 16. ² *Ib.* 18. ³ Klemm C. G. ii. 83. ⁴ Ploss M. K. 46. ⁵ *Ib.* 41. ⁶ 2 Sam xii. 16. ⁷ *Ib.* 22. ⁸ Lippert F. 215.

SEC. 73. *Infancy, etc.*—¹ Waitz, Klemm and nearly all authors who have described savage life. ² Clark 297. ³ Waitz i. 178. ⁴ *Ib.* v. iii. ⁵ Wilkes v. 102. ⁶ Waitz v. 108. ⁷ Lippert K. G. i. 208. ⁸ Klemm C. G. ii. 83. ⁹ Lubbock O. C. 34.

SEC. 74. *Son-in-law Shyness*.—¹ Turner 298.

The leading authorities here are Lubbock O. C. Ch. i. and Tylor.

SEC. 75. *Womanhood*.—¹ Abbott 371. ² Waitz i. 110. ³ Holub i. 302. ⁴ Powers 85. ⁵ Orton 322. ⁶ Bancroft i. 411. ⁷ *Ib.* 82.

SEC. 76. *Modesty*.—¹ Walker 23, Wood i. 411, Livingstone E. Z. 256, Thomson A. L. i. 271, Waitz i. 359, Klemm C. G. i. 185, 302, Guinard 116, Lippert K. G. i. 433, Gibbon 295.

SEC. 77. *Nudity*.—¹ Monteiro ii. 187, Klemm i. 302.

In some Polynesian Islands, the women smear themselves with the glutinous dark sap of a tree, and allow it to dry on the body and remain there for six days. When washed, the skin is much fairer than before. Wood ii. 386.

SEC. 78. *Clothing*.—¹The author's personal observation. ²Spencer D. S. vi. 60. ³Klemm ii. 41.

SEC. 79. *Ornaments*.—¹Schweinfurth i. 282. ²Stanley D. C. ii. 319. ³Schweinfurth i. 153. ⁴Spencer D. S. v. 57. ⁵Pop. Sci. Monthly Sept. 1885.

SEC. 80. *Hair Dressing*.—¹Wood i. 505. ²*Ib.* 531. ³*Ib.* 689. ⁴Livingstone S. A. 624. ⁵Turner 308. ⁶Schweinfurth ii. 7, Clark 201, Bonwick D. L. 109, Keate 29, Mouatt 305.

Clark thinks that the eyelashes may be pulled out because paint sticks in them.

SEC. 81. *Oil and Paint*.—Spencer C. I. 417, Wood i. 362.

SEC. 82. *Tattoo*.—¹Among the Redmen and Karens. ²Among the Maoris. ³Among the Congoese, Spencer D. S. iv. 23. ⁴Burton L. R. ii. 63. ⁵Waitz v. 66. ⁶*Ib.* vi. 41. ⁷Ploss K. 338. ⁸Lubbock O. C. 63. ⁹Stanley D. C. ii. 285. ¹⁰Wood ii. 225. ¹¹Baker N. T. 273, Guppy 135.

Process of tattooing in Samoa, Barnes 161.

SEC. 83. *Mutilations*.—¹Spencer D. S. iv. 23, Bock 474, Latham V. M. 150, Schweinfurth i. 294. ²Lippert K. G. i. 440. ³Holub ii. 259. ⁴Livingstone L. J. 372, 373. ⁵Forbes 313. ⁶Latham V. M. 150. ⁷Bancroft i. 334. ⁸Hornaday 393. ⁹Waitz v. 130. ¹⁰Ploss K. 312. ¹¹Authorities on skull flattening: Spencer D. S. vi. 19. Bancroft i. 180, Powell 221, Hall 568, Featherman i. 28, D'Albertis ii. 101, Berthet 181, Barnes 33, Thorburn 146. ¹²Nose flattening. Ploss K. Ch. xiv, Spencer D. S. iii. 10, 11; iv. 18, Berthet 183. Barnes 33. ¹³Spencer D. S. iv. 23. Monteiro i. 267. ¹⁴Lippert K. G. i. 413. ¹⁵Bonwick D. L. 27. ¹⁶Harris 298. ¹⁷Cameron 208. ¹⁸Jones 86. ¹⁹Schweinfurth i. 297. ²⁰Burton S. R. i. 326. ²¹Cook i. 263. ²²Livingstone L. J. 232. ²⁴Spencer D. S. iii. 61. ²⁵Waitz vii. 770, 780, 26, *Ib.* 781.

For mutilations generally, see Spencer 357-367.

Those who desire to study the authorities in reference to mutilations, some of which are not named here, may examine the following: Ploss K. Ch. xiv, Spencer C. I. 362, Waitz i. 111, ii. 251, 516, v. 18, 164, 560, 561, vi. 770, 780, 789, Wallace A. 358, Bonwick D. L. 121, 499, Burckhardt N. 331, 331, *Ib.* P. 434, Baker N. T.

124, Orting 326, 322, Burton G. L. i. 83, Emin Pasha 95. Anthropological Society Memoirs i. 327, 328, Cameron 240, Cook i. 327.

SEC. 85. *Capacity*.—¹Tylor A. 60. ²Lippert K. G. i. 92. ³Spencer P. S. 41. ⁴*Ib.* 43. ⁵*Ib.* ⁶*Ib.* ⁷*Ib.* 51. ⁸Authority lost. ⁹Spencer P. T. 34. ¹⁰*Ib.* 33. ¹¹*Ib.* ¹²Lubbock P. T. 513. ¹³Spencer D. S. iv. 32.

The following paragraph from Waitz (i. 479) seems worthy of attention :—

“Man has no natural tendency to progress. The modern idealistic doctrine of the development of his mind, under the influence of its independent and innate impulses, is a fiction which flatters his vanity though it defies leading facts in the history of his culture. His thought unquestionably created and maintained civilization, but this thought is not spontaneous, in either its beginning, its continuance, nor is it the function of a single individual, but is the result of the competing, conflicting and reacting struggles of human society, influenced by its surroundings and nurtured and matured by a controlling historical destiny.”

In this passage Waitz begins with a denial of man's innate capacity to develop culture, and ends with the admission that progress is the necessary product of “the struggles of human society, influenced by its surroundings.” Man is so constituted mentally that he must organize society. The question of what he might have been as a solitary animal independent of a material environment has no relation to historical experience or practical philosophy.

SEC. 86. *Preponderant Present*.—¹Spencer P. S. 41. ²*Ib.* ³*Ib.* ⁴Lippert K. G. i. 7. ⁵*Ib.* ⁶*Ib.* ⁷*Ib.* 39.

SEC. 87. *Early Maturity*.—¹Lippert K. G. i. 228. ²*Ib.* 61. ³Spencer P. S. 48. ⁴*Ib.* ⁵*Ib.* Waitz ii. 235.

SEC. 88. *Jollity*.—¹Waitz ii. 103, 135, vi. 106, Skertchly 191. ²Lubbock O. C. 517. ³Melville T. 169.

SEC. 89. *Politeness*.—¹Pop. Sci. Monthly Dec. 1886, p. 209. ²Baegert Ch. vii. He says the Lower Californians have no salutations. ³Spencer P. S. 346. ⁴Monteiro i. 241. ⁵Peschel 478, Waitz iii. 136, Crantz i. 271.

SEC. 90. *Salutations*.—¹Spencer P. S. 386. ²Featherman i. 439. ³Spencer D. S. iii. 12. ⁴*Ib.* iii. 3. ⁵Spencer P. S. 385. ⁶*Ib.* 383. ⁷*Ib.* 384. ⁸*Ib.* D. S. iii. 17. ⁹Lubbock O. C. 39. ¹⁰Spencer D. S. iv. 28. ¹¹Spencer P. S. 387. ¹²*Ib.* ¹³Wood ii. 267. ¹⁴Bancroft i. 777. ¹⁵Spencer P. S. 389. ¹⁶Waitz iii. 59. ¹⁷Spencer D. S. iv. 17, Peschel 237. ¹⁸Klemm C. G. ii 304. ¹⁹Rein 426. ²⁰Jagor

161. ²¹ Wood ii. 230, Spencer D. S. iii. 7. ²² Wood i. 523, 526.
²³ Waitz iii. 468. ²⁴ Bancroft i. 68. ²⁵ Spencer D. S. iv. 21. ²⁶ Hesse-Warteg 260. ²⁷ Wood i. 562.

The best authority on savage salutations is Spencer P. S. 392-398.

SEC. 91. *Education*.—Dodge H. G. 324.

SEC. 92. *Morality*.—¹ Peschel 280. ² Spencer E. I. 646. ³ *Ib.*
⁴ *Ib.* D. S. iv. 23. ⁵ Waitz vi. 303. ⁶ Lippert K. G. i. 93. ⁷ Low 248.
⁸ Waitz iii. 389

Buckle's assertion, that there has been no advance in moral ideas in thousands of years, deserves mention here. He says (H. C. i. 129) "there is, unquestionably, nothing to be found in the world, which has undergone so little change as those great dogmas of which moral systems are composed. To do good to others; to sacrifice, for their benefit, your own wishes; to love your neighbor as yourself; to forgive your enemies; to restrain your passions; to honor your parents; to respect those who are set over you; these, and a few others, are the sole essentials of morals. But they have been known for thousands of years, and not one jot or tittle has been added to them by all the sermons, homilies and text-books which moralists and theologians have been able to produce."

Buckle's "sole essentials of morals" which "have been known for thousands of years" were, for many centuries, understood to justify slavery, hereditary nobility, hereditary priesthood, despotic government, press censorship, religious persecution, prohibition of educating slaves and warfare for conquest. To assert that the general condemnation and overthrow or diminution of these great evils, in recent times, has not been in the aggregate, a great addition to morality is equivalent to saying that the people have no right to political or intellectual freedom. The science of ethics is like every other attribute of humanity, in one respect at least; it grows. It has grown in every phase of culture.

Darwin (D. M. ch. iv.) expresses the opinion that morality grows, and cites Lecky H. M.

SEC. 93. *Amusements*.—¹ Monteiro ii. 274. ² Klemm ii. 113.
³ *Ib.* 109. ⁴ *Ib.*, *Ib.* Moerenhout ii. 151. ⁵ Wood ii. 490. ⁶ Gill S. S. 65. ⁷ Dodge H. G. 333. ⁸ Klemm ii. 110. ⁹ Wood ii. 378. Ellis P. R. i. 221.

SEC. 94. *Poetry, etc.*—¹ Waitz vi. 92. ² Spencer D. S. vi. 10. For samples of oratory of the Tongans, see Waitz vi. 101; for oratory of Redmen, *ib.* iii. 141; for Lenape legends, Klemm ii. 183;

for Maori legends, Bonwick D. L. 190; for Hawaiian legends, Kalakaua 69-507; for poetry of Lenape, Klemm ii. 182; of Malagasy, Spencer D. S. iii. 62; of Khonds, *ib.* v. 56; of Karens, *ib.* 57; of Tahiti, Waitz vi. 120, and of New Zealand, Waitz vi. 140. ³ Scherzer V. N. iii. 128. ⁴ Waitz vi. 75.

SEC. 95. *Music*.—¹ Turner 125. ² G. Forster i. 291. ³ Wood i. 296. ⁴ Martineau Ch. iv. ⁵ Spencer D. S. iii. 62. ⁶ Wood i. 230. ⁷ G. Forster i. 429. ⁸ Wood i. 414. ⁹ *Ib.* 295. ¹⁰ Spencer D. S. v. 56. ¹¹ Ellis P. R. i. 198. ¹² Waitz vi. 171. ¹³ Guppy 141.

For notes of savage airs, see Wood L. i. 293. Klemm ii. 216. Schweinfurth ii. 75. Dodge O. W. I. 355.

SEC. 96. *Medicine and Surgery*.—¹ For Patagonian cure of croup, see Guinnard 147. ² Waitz iii. 82. ³ Wilkes iv. 464. ⁴ Bancroft i. 245. ⁵ Guppy 178. He quotes Aitken's *Medicine*, 6th Edition i. 859, to show that syphilis existed in prehistoric France. For its existence among the Mound-Builders, see Maclean M. B. 146; for Australia before arrival of whites, see Klemm i. 785. ⁶ Livingstone L. J. 56. ⁷ Forbes 69. ⁸ Parkyns ii. 224. ⁹ Spencer D. L. iv. 34. ¹⁰ *Ib.* 35. ¹¹ Waitz iii. 226. ¹² Wood i. 560. ¹³ Featherman i. 398. ¹⁴ Guppy 166. ¹⁵ Waitz iii. 399. Ellis P. R. iii. 43. ¹⁶ Cartailhac 83. ¹⁷ *Ib.* 87. ¹⁸ Jarves. ¹⁹ Waitz ii. 464. ²⁰ Cook ii. 124.

For a very remarkable remedy for tetanus, see Waitz (vi. 398), who cites D'Urville as his authority and Klemm (iv. 394), who obtains his information from Mariner.

The Monbuttoos smear the juice of the caoutchouc plant over the skin where affected by a dry cutaneous disease. Emin Pasha 443.

SEC. 97. *Vocabulary*.—¹ Max Muller S. L. i. 383. ² *Ib.* i. 353. "A complex train of thought can no more be carried on without the aid of words, whether spoken or silent, than a long calculation without the use of figures or algebra." Darwin D. M. 86. ³ *Ib.* i. 368. Romanes (430) thinks that speech "began with sentence-words in association with gesture-signs." Adam Smith thought first words were verbs; Dugald Stewart argued that they were nouns. Max Muller i. 41. Sayce (I. S. L. ii. 77) says, "Language is thus of interjectional origin, helped by the imitative instinct, and language, in the course of its development, created and moulded thought." Elsewhere (*ib.* 101) he says, "the further back we can trace a language, the poorer it seems to be." ⁴ Max Muller, S. L. i. 86, 117. Featherman 300, 639. ⁵ Max Muller, S. L. i. 266. ⁶ *Ib.* S. L. i. 265. ⁷ *Ib.* ii. 285. ⁸ Lippert K. G. i. 141. ⁹ Lubbock P.

T. 574. ¹⁰ *Ib.* ¹¹ Bonwick D. L. 160. ¹² Lubbock P. T. 574. ¹³ Lippert K. G. i. 141. ¹⁴ Bonwick D. L. 160. ¹⁵ Lippert K. G. i. 139, 140. ¹⁶ *Ib.* ¹⁷ Peschel 116, 117. ¹⁸ Max Muller S. L. ii. 355. ¹⁹ *Ib.* 35. ²⁰ Lubbock O. C. 440. ²¹ *Ib.* 439. ²² *Ib.* 438. ²³ Spencer D. S. vi. 56. ²⁴ Fornander i. 157. ²⁵ Tylor E. H. 165. Powell 255, Clark 27.

SEC. 98. *Sounds and Signs.*—¹ Darwin J. R. 206, Sayce I. S. L. i. 284. ² Spencer D. S. iv. 36. ³ Tylor P. C. 153. Featherman i. 181. ⁴ Max Muller S. L. ii. 39. ⁵ Spencer iii. 46. ⁶ Lubbock O. C. 518. Bonwick D. L. 152. ⁷ Peschel 114. ⁸ Lippert K. G. 142. ⁹ Max Muller S. L. ii. 177. ¹⁰ Lubbock P. T. 450. ¹¹ Max Muller S. L. ii. 202. ¹² Lippert K. G. i. 160. ¹³ Spencer D. S. iii. 45. ¹⁴ *Ib.* 44. ¹⁵ Tylor P. C. 148. ¹⁶ Lippert K. G. i. 160. ¹⁷ Tylor E. H. 144, 188. ¹⁸ Featherman i. 654. ¹⁹ Ellis W. A. L. 76. ²⁰ *Ib.* ²¹ Melville T. 256. ²² Spencer D. S. iii. 44. ²³ *Ib.* 45. ²⁴ Lyell, A. ii. 275. ²⁵ Spencer D. S. 169. ²⁶ Tylor P. C. 149. ²⁷ Lippert K. G. i. 160. ²⁸ Tylor E. H. 45.

The Annamitic sentence consisting of "Ba ba ba ba," is from Max Muller S. L. ii. 39.

SEC. 99. *Grammar.*—¹ Max Muller S. L. i. 288. ² Bonwick D. L. 147, Sayce (I. S. L. i. 375) says, "If the excellence of a language is to be decided by the number and variety of its grammatical forms, the palm will be borne off rather by the Eskimos or the Cherokees than by the dialects of Greece and Rome." J. L. Wilson (240) tells us that no language in the world is capable of greater precision in expression than that of Southern Guinea. According to Burton (G. L. i. 111) there are from 1,200 to 1,500 derivatives from one verb in the Mpongwe tongue. Waitz (i. 314) observes "that the grammatical construction of the tongues of the rudest tribes has a perfectly defined and strongly impressed regularity, as now universally admitted." The complexity in the inflexions of the verbs is often accompanied by remarkable poverty in the nouns. For this reason there is great difficulty among some Australians, as Wallace tells us (A. 51), in expressing many ideas common among civilized people. In such a tongue there is no simple nominative. The noun instead of being general is specialized by such limitations as that it is staying in, going to or coming from a place.

Max Muller (O. R. 68) says: "Languages which have cases to express nearness to an object, movement alongside of an object, approach towards an object, but which have no purely objective

case, no accusative, may be called rich, no doubt, but their riches is truly poverty." This remark applies also "to their dictionary. It may contain names for every kind of animal; again for the same animal when it is young or old, male or female; it may have different words for the foot of a man, a horse, a lion, a hare; but it probably is without a name for animal in general, or even for such concepts as member or body. There is here, as elsewhere, loss and gain on both sides."

SEC. 100. *Rapid Change*.—¹Spencer D. S., iv. 36. ²Max Muller, S. L. i. 62. ³*Ib.* ⁴*Ib.* 36. ⁵*Ib.* 43. ⁶Peschel 104. ⁷Featherman i. 594. ⁸Latham V. M. 262.

SEC. 101. *Intellectual Development*.—Dr. Ferguson (Max Muller S. L. i. 357) says, "The speculative mind, in comparing the first and last steps of the progress of language, feels the same sort of amazement with a traveler who, after rising insensibly on the slope of a hill, comes to look from a precipice of an almost unfathomable depth to the summit of which he scarcely believes himself to have ascended without supernatural aid." Romanes (300) observes that the anthropology proves that men have come from several or many distinct sources. That many peculiarities of speech had a local origin may be granted. Romanes (373) quotes the following sentence from Sayce: "When we remember the inarticulate clicks which still form part of the Bushmen's language, it would seem as if no line of division could be drawn between man and beast, even when language is made the test." That statement seems to imply that speech is as old as humanity and must have had a common origin with it. The grammar of a child just beginning to speak is like that of the Chinese.

The same author (258) says, "That the existing languages of the earth did originate in more than one centre is now the almost unanimous belief of competent authorities." In Sayce (I. S. L. i. 73) we read that, "The languages of the world cannot be carried back to a single source. There are at least as many original languages as existing families of speech." Notwithstanding the high authority of Sayce and Romanes, I must remark not only that I have seen no convincing evidence to prove that point, but that I think no such evidence can be produced until it is shown that the different races of men are not descended from the same original stock. The black man came from the beast; the yellow man from the black; the white from the yellow; and the languages of the yellow and white men from the primitive speech of the primitive black men. This is the natural course of growth.

Max Muller (N. R. 321) says: "I hold as strongly as ever that every inflectional language must have passed through an agglutinative stage, and that this agglutination is always preceded by the isolating stage."

Sayce (I. S. L. i. 75) remarks that, "The continued existence of isolating like the Chinese or of agglutinative tongues like the Magyar and the Turkish shows that the development is not a necessary one." Romanes (253) quotes that sentence and approves it; and I must venture to express dissent. The growth of the typical man to a height of four feet or more is a physical necessity of his nature, notwithstanding the fact that some dwarfs stop growing when they reach a height of two feet. The rule is determined by the general, not by the exceptional facts. Progress is a necessary feature of human life in language as well as in other departments.

SEC. 102. *Headless Groups*.—¹Spencer P. S. 205. ²*Ib.* ³*Ib.*

SEC. 103. *Freedom*.—¹Ward ii. 233. Hellwald i. 334. ²Lubbock O. C. 446.

SEC. 104. *Unstable Headship*.—¹Spencer P. S. 542.

SEC. 105. *Stable Headship*.—This subject is well discussed in Spencer P. L.

SEC. 107. *Assemblies, etc.*.—¹Spencer P. S. 464.

SEC. 108. *Savage Confederacies*.—¹Morgan A. S. 70, 129, 130, 136, 143, H. 37. ²*Ib.* 132, 140. ³Hesse-Warteg 223. ⁴Waitz v. 187.

SEC. 109. *Retaliation*.—¹Spencer P. S. 466. ²*Ib.* 533.

SEC. 110. *Retaliation Restricted*.—¹Num. ii. 30-31. ²Koran ii. 17. Among the Apaches, according to Cremony (293), the avenger challenges the murderer to mortal combat in open and fair fight. Such a method of settlement is without a parallel elsewhere, and perhaps the statement is an incorrect inference from some exceptional case. ³Spencer D. S. iv. 22. ⁴Jarves 59. Wood ii. 329. Spencer D. S. iii. 12. Waitz iii. 127. ⁵Icon. Encyclopedia i. 138. ⁶Featherman 455, 581, 603. Peschel 239. ⁷Spencer P. S. 523.

SEC. 112. *Succession*.—¹Spencer D. S. iv. 7. ²Featherman i. 104. ³Moerenhout ii. 13, ⁴Featherman i. 185.

SEC. 113. *Ordeals*.—¹Spencer D. S. iii. 15. Krapf East Af. 174. ²*Ib.* 173. ³Jarves 39. ⁴Spencer D. S. iii. 14. ⁵Brooke 331. ⁶Wood ii. 511.

SEC. 114. *Property*.—¹Spencer D. S. v. 36. ²Waitz v. 187. ³Bourke S. D. 135. ⁴Waitz vi. 224. ⁵*Ib.* 225.

SEC. 115. *Slavery*.—¹Waitz i. 211. ²*Ib.* ii. 469. ³Burton L. R. ii. 189. Richardson ii. 205. ⁴Spencer D. S. iv. 23.

SEC. 116. *Nobility*.—¹ Spencer P. S. 461. ² Waitz vi. 200. ³ *Ib.* v. 172-175. ⁴ Du Chaillu A. L. 420.

SEC. 117. *Political Development*.

SEC. 118. *War*.—¹ Wood ii. 207. ² Jones 7.

SEC. 119. *Battle*.—¹ Wood i. 356. ² Waitz vi. 744-746. ³ *Ib.* vi. 147. ⁴ Skertchly 455. ⁵ Stanley D. C. i. 400. ⁶ Waitz iii. 150. ⁷ *Ib.* iii. 151. ⁸ Dodge H. G. 275, *Ib.* O. W. I. 145. Kane 80.

SEC. 120. *Trophies*.—Spencer P. S.

SEC. 121. *Fortifications*.—For descriptions of the fortifications of the Mound-Builders, see Maclean M. B.

SEC. 122. *Initiation* —¹ Catlin i. 21. ² This weight is the author's guess, made many years after seeing such a skull. The weights vary much, and the heaviest were doubtless preferred. ³ Dodge H. G. 257, 260. Catlin i. 233. Pop. Sci. Monthly, June, 1886. Capt. A. W. Corliss, U. S. A., who had been stationed for years in the territories of the Dakotas, told the author that their mode of initiation bore more resemblance to that of the Cheyennes, as described by Dodge, than to that of the Mandans. For Blackfoot initiation, see Pop. Sci. Monthly, Aug. 1889. For Dakotas, Catlin i. 178, Long i. 276, Clark 71, 361. For Crows, *ib.* 135. For Hidatsas, *ib.* 194. For Arickarees *ib.* 196. For Poncas, *ib.* 363. For other tribes, *ib.* 73. For Chippeways, Kohl 228. ⁴ Waitz iii. 149. ⁵ *Ib.* 328. ⁶ Ploss 427. ⁷ Robinson 173. ⁸ Wood ii. 516. ⁹ Klemm C. G. ii. 113. ¹⁰ Latham V. M. 240. ¹¹ Bancroft i. 735. ¹² Spencer D. S. vi. 57. ¹³ *Ib.* v. 16. ¹⁴ Parkyns ii. 219, Baker N. T. 125. ¹⁵ Waitz i. 390. Livingston S. A. 164, Wood i. 325. ¹⁶ Waitz iii. 389, Spencer D. S. vi. 56. ¹⁷ Spencer D. S. vi. 58. ¹⁸ Wood ii. 616. ¹⁹ Burckhardt N. 397. ²⁰ Romilly 32. ²¹ Lafitau i. 297-300. ²² *Ib.* 303. ²³ Spencer D. S. vi. 13, 20.

Kohl (132) says the Chippeways have a severe initiation for priests.

SEC. 123. *Spirits*.—¹ Lippert K. G. i. 125, Spencer P. S. 146. ² Waitz i. 363, Lippert S. C. ³ Spencer D. S. iv. 18. ⁴ Featherman i. 51. ⁵ Lubbock P. T. 437. ⁶ *Ib.* i. 217. ⁷ Wood i. 348. ⁸ *Ib.* i. 257. ⁹ Lubbock O. C. 234. ¹⁰ Spencer P. S. 162. ¹¹ Featherman 82. ¹² Wilson 395, Tylor E. H. 7.

The chief argument to prove that the lowest savages have no religion, has been made by Lubbock. He says (O. C. 208), "If the mere sensation of fear and the recognition that there are probably other beings more powerful than oneself, are alone sufficient to constitute a religion, then we must, I think, admit that religion is

general to the human race. But when a child dreads the darkness, and shrinks from a lightless room, we must never regard that as an evidence of religion. Moreover, if this definition be adopted, we can no longer regard religion as peculiar to man."

Although probably not so intended, every sentence in that paragraph misrepresents the question under consideration. The feeling to be accounted for is not fear but fear of spirits; and since that sensation is not attributed to brutes, the mention of them is inapplicable to this argument. Neither is the "dread of darkness" relevant; there are good reasons for disliking to go where we cannot see, such as the fear of running against something and hurting ourselves. The admission, in the first sentence, would have been appropriate, to Lubbock's position, if it had been thus expressed: "If the mere belief in spiritual beings, powerful enough to greatly influence human life, and fear of them, are sufficient to constitute religion, then we must admit that religion exists in all savage tribes."

While denying the existence of religion in many tribes, Lubbock says: "The savage is, however, almost universally, a believer in witchcraft" (P. T. 581), that is in a supernatural power. Tylor, S. C. ii. 417-424, has replied very forcibly to Lubbock. Both arguments deserve to be read by those who wish to examine this question thoroughly.

Tylor (P. C. 15) says: "Most of what we call superstition is included within survival, and in this way, lies open to the attack of its deadliest enemy, a reasonable explanation."

Tylor introduced the word "animism" to mean "the doctrine of spiritual beings," a belief which, as he says (P. C. 385) "characterizes tribes very low in the scale of humanity and thence ascends, deeply modified in its transmission, but from first to last, preserving an unbroken continuity into the midst of high modern culture." Many other authors have accepted animism as a valuable addition to the English language, but Lippert (S. C.) objects that while it expresses the philosophical conception of a future life, it fails to convey the idea of a worship of the disembodied spirits. He uses soul-worship (*seelenkult*) as preferable. Among savages the belief in spirits is always accompanied by worship.

SEC. 124. *Imaginary World*.—¹Lip. K. G. i. 30. ²Waitz ii. 190. ³*Ib.* ii. 152, Allen ii. 121. ⁴Spencer P. S. 70, 71. ⁵Waitz iii. 195. ⁶Maine 35, Spencer P. S. 79, 83. ⁷Waitz vi. 343. ⁸Spencer E. C. 583, P. S. 56, 95. ⁹*Ib.* 70, 71. ¹⁰Du Chaillu E. A. 383, 384.

¹¹Spencer P. S. 99, 100. ¹²*Id.* 100. ¹³Low 260, 263. ¹⁴Spencer P. S. 93. ¹⁵*Id.* 87, Lubbock O. C. 235. ¹⁶*Id.* ¹⁷Dodge H. G. 283. Clark 325. ¹⁸Spencer P. S. 87. ¹⁹Lubbock O. C. 235. ²⁰Tylor P. C. ii. 20. ²¹*Id.* 112.

²²Scott's Madge Wildfire says, "Whiles I think my puir bairn's dead—ye ken very weel it's buried—but that signifees naething. I have had it on my knee a hundred times, and a hundred till that, since it was buried,—and how could that be were it dead, ye ken—its merely impossible." In this case, the woman, as Tylor (*E. H. Ch.* vi.) says, "confounds imagination with reality." She does not distinguish between subjective and objective perceptions. She is like a class of persons who see visions in the fancy, and fancy they see them in the material world.

I was acquainted with Alice and Phœbe Carey, sisters, poets, and ladies of most estimable character. Both have been dead for many years. Both had visions in which they saw, heard and felt spirits. One of them Alice if I recollect aright, told me that these spirits appeared to her senses as real as did any of her acquaintances. To her, they were, in no sense, illusions. Of their real existence, independently of her fancy, she had no doubt. In the opinion of the learned men of our time, generally, such figures are the products of an abnormal condition of the brain; they are the creations of an unregulated imagination. As Pascal says, the imagination is "one of the deceitful powers;" it has a great influence on human life. Lecky (*H. M.* i. 59) says that the whole history of the intellectual progress of the world is "one long struggle of the intellect of man to emancipate itself from the deceptions of Nature." This is perhaps too broadly stated; but man is certainly misled very seriously, and in many different directions, by fancies which seem to be inseparable from the ignorance that accompanies not only the low but also the high stages of culture.

I believe in clairvoyance because I have had direct, and to me conclusive, proof of its truth. About 1872, Charles Foster, a noted spirit medium, made his first professional visit to San Francisco. Very soon after his arrival, I was one of four visitors to whom he gave a sitting. I had never seen him, nor he me. He had no opportunity, so far as I knew, of learning anything about me, or my relatives. He could not have expected me, for I had no thought of seeing him until five minutes before I started. On reaching his hotel our party stopped in an ante-room where we each wrote the names of about a dozen deceased friends on bits of

paper five inches square. These were folded over with the names inside, until they were about three-quarters of an inch wide and five inches long. All these papers were given to me; and after they were put into my hat, I could not, without opening them, have told which I had written, nor, if I had had mine separate, could I have told what name was on any one slip of paper. We went into Foster's room and were not introduced. We sat down with him at a round table about four feet in diameter. I turned out my papers on the table. He did not open one of them, nor did he hold one up in such a manner as to suggest that he tried to see what was in it. In the course of the sitting, he picked up one of the papers, which he held in his left hand while, with his right, he wrote the name John Shertzer; and then he gave both papers to me. I opened the closed paper and found that it was one on which I had written the name of a deceased uncle. I asked where he died. Foster requested me to write half a dozen places and put the right one among them. I made such a list, correct as I supposed. Foster scratched out all the names and said John Shertzer did not die at any place there named. I insisted that he did, whereupon Foster said he thought not, but if so, it was at Lebanon, Pennsylvania. It did not occur to me until afterwards that the death occurred at the village of Annville, in Lebanon County, Pennsylvania, five miles from the town of Lebanon. I knew this fact at the time, but my recollections were confused, and for the moment I had forgotten. The death of John Shertzer occurred in 1854 and I am satisfied that Foster had never heard of him.

Foster picked up a piece of paper and said, "Here's the name of a man that was shot," and looking at me he added, "This is yours." I asserted that I did not put the name of any man that had been shot in my list. Foster, without opening the paper, wrote out the name William Shertzer, and then gave me both papers. I explained, I had spoken too hastily. Wm. Shertzer disappeared mysteriously in southern Ohio about 1838, and his relatives never knew how or where he died. He may have been shot.

General John McComb, now warden of the State Prison at San Quentin, was one of my companions in the visit to Foster. The latter, in the course of the sitting, said to McComb, "Thomas is here." McComb said, "I did not write the name of any Thomas." Foster replied that he thought he did. After some conversation with others, Foster again spoke to McComb and said, "The General is here." McComb remarked that he did not put in the name

of any General. Foster said: "Certainly you did. Here's his name." He picked out a paper from the pile on the table, and without opening it, wrote the name General Cazneau, a deceased militia general and insurance agent of San Francisco. I remarked that Cazneau's first name was Thomas. Foster caught both McComb and myself in two errors about matters of which we knew everything and he nothing. Besides, these were not the only instances of the kind that occurred in the course of the sitting. He made no mistake, and he replied to many questions for each of the party. No chance, no preparation, could have enabled him to succeed. He was aided either by clairvoyance or by spirits.

Foster claimed that he obtained his information from spirits. I believe that he had an abnormal or clairvoyant perception, and that the disembodied souls which he saw or heard existed only in his imagination. I have several friends in whose learning and wisdom I have great confidence, who had direct evidence similar to my own, and who, like me, believe in clairvoyance and not in spirit communication.

I sent a proof of this note to General McComb, with requests for corrections, and for leave to use his name. In response he says:—

"I have read the proof slips of an interview with Charles Foster, and my recollection of the facts agrees with your statement. As I am not a believer in spiritism, perhaps I should add that I was very much puzzled by the disclosures made by Mr. Foster, who was an entire stranger to me. You are privileged to use my name in verification of the facts stated by you."

Laycock (i. 176) says "that certain facts are familiar to the students of insanity, hysterical delirium, somnambulism, mesmeric clairvoyance, and so forth." This language implies that Laycock regards mesmeric clairvoyance as an abnormal, physical condition, not less genuine than insanity, hysterical delirium, and somnambulism; and to a certain degree, akin to them.

It is the existence of clairvoyance that has been the main support of the religion of spiritism in the United States, and that may have had a great influence in suggesting and maintaining the spiritual ideas in savage religions.

SEC. 125. *Devout Fear*.—¹Tylor P. C. ii. 209. ²Spencer E. I. 584. ³*Id.* P. S. 117. "No people," says Ballou (14), "could be more superstitious than the colored residents of Nassau. They shut up and double lock the doors and windows of their cabins, at night, to keep out the spirits." ⁴Lippert K. G. i. 118. ⁵*Id.* 112.

⁶ *Ib.* 118. ⁷ *Ib.* 113. ⁸ *Ib.* 118. ⁹ *Ib.* ¹⁰ Spencer P. S. 117. ¹¹ Waitz iii. 41. ¹² *Ib.* vi. 310. ¹³ Spencer D. S. v. 39. ¹⁴ Featherman, 204, 255, 288, 520, 549, 646. ¹⁵ Monteiro i. 247. ¹⁶ Parry 551. ¹⁷ Lubbock O. C. 220. ¹⁸ *Ib.* P. T. 578. ¹⁹ *Ib.* O. C. 221. ²⁰ *Ib.* 221. ²¹ Spencer E. J. 584. ²² *Ib.* D. S. v. 39. ²³ *Ib.* P. S. 117. Tylor P. C. ii. 117. ²⁴ Waitz vi. 330. ²⁵ Tylor P. C. ii. 178. ²⁶ *Ib.* Spencer D. S. v. 34. ²⁸ *Ib.* iii. 14. ²⁹ *Ib.* v. 15. ³⁰ *Ib.* E. J. 584. ³¹ Tylor P. C. i. 193. ³² *Ib.* ³³ Spencer D. S. v. 40. ³⁴ Wood i. 466

SEC. 126. *Next Life*.—¹ Spencer P. S. 101. ² *Ib.* 110–112. ³ *Ib.* 106. ⁴ *Ib.* D. S. iii. 6. ⁵ *Ib.* P. S. 110. ⁶ Lubbock O. C. 283. Tylor P. C. i. 429, 440. ⁷ Spencer P. S. 96.

SEC. 127. *Burial, etc.*—¹ Clark 90. ² Cameron 94.

SEC. 128. *Mourning*.—¹ Wood i. 232. ² Spencer D. S. vi. 52. ³ Deut. xiv. 1. ⁴ Bancroft i. 288. ⁵ Dodge W. I. 172. ⁶ Waitz vi. 401.

Writing of the tropical Polynesians Gerland (Waitz vi. 339) says: "Faith in spiritual powers was evolved in these islands in the simplest accordance with the promptings of nature, and the resulting heathenism was more complete than any to be found elsewhere. No other race has had in its history so few external shocks, to stimulate or check its spontaneous growth. Therefore it is that, mythologically considered, the Polynesians not only show us the original type of humanity, but also the course of its growth. They show us what religious ideas, under circumstances not obstructive to his cultural development, man can and must adopt in the higher phases of savagism."

SEC. 129. *Soul Worship*.—¹ Waitz vi. 330. ² Lippert K. G. ii. 293. ³ Spencer P. S. 373. ⁴ *Ib.* 143. ⁵ Jones 428. ⁶ Lubbock O. C. 382. Cumming H. F. 251. ⁷ Waitz vi. 370. ⁸ Spencer P. S. 388. ⁹ Krapf. 52.

SEC. 130. *Totemism*.—¹ Waitz vi. 336, 373. ² Lubbock O. C. 266–270. ³ Spencer P. S. 167. ⁴ *Ib.* 166. ⁵ *Ib.* ⁶ *Ib.* 167. ⁷ *Ib.* 172. ⁸ *Ib.* ⁹ *Ib.* 165. ¹⁰ *Ib.* 180–182. ¹¹ *Ib.* 182. ¹² *Ib.* *Ib.* 179. ¹³ *Ib.*

As a result of the idea that many divinities take up their residence in beasts, the Solomon Islanders think that a shark should have the man whom he has tried to catch. If the man escapes into a canoe, they throw him overboard. Guppy 71.

List of animals sacred in various African tribes. Waitz ii. 178, 179, 352.

SEC. 131. *Fetichism*.—¹ Lubbock O. C. 328. ² Waitz vi. 317.

³ Bancroft i. 61. ⁴ In shamanism "every object and force of nature is supposed to have the 'zi,' or spirit, who could be controlled by magical exorcisms of the Shaman. or sorcerer priest." Sayce A. E. E. 146. ⁵ Tylor P. C. ii. 153.

For Redman's fetish, or medicine, see Clark, 248. Catlin i. 36.

Much has been written to prove that shamanism is one of the main phases of religion in rude culture, and that it is limited to Asia. The main idea that the priest can control disembodied spirits and compel them to help or hurt the living is found among the fetish worshipers, and the line between fetishism and shamanism is vague and unimportant. Lippert (G. P. i. 252) discusses shamanism fully, and I think is the best authority in regard to it.

SEC. 132. *Ancestor Worship*.—¹ Spencer P. S. 147. ² *Ib.* 152. ³ Deut. xxvi. 14. ⁴ Spencer P. S. 152. ⁵ *Ib.* 142. ⁶ *Ib.* ⁷ Holub. 302.

SEC. 133. *Offerings*.—¹ Spencer P. S. 139, 368-377. ² *Ib.* Tylor P. C. ii. 32-34. ³ Spencer D. S. iv. 15. ⁴ *Ib.* P. S. 139. ⁵ Turner 20. ⁶ Spencer P. S. 373. ⁷ *Ib.* 108.

In Unyoro and Uganda "if the dead appear to their relations in a dream, an offering of flour and the blood of a sheep is brought to the clay vessels and the spirits are besought to discontinue their visits." Emin Pasha, 230.

SEC. 135. *Human Sacrifices*.—¹ Allen 328. ² Stanley C. ii. 181. ³ Baker i. 335. ⁴ Featherman i. 444. ⁵ Spencer P. S. 106. ⁶ *Ib.* ⁷ Wood i. 222. ⁸ Spencer P. S. 104. ⁹ Baker i. 335. ¹⁰ Cameron ii. 110. ¹¹ Wood ii. 753. ¹² Spencer D. S. v. 39. ¹³ Waitz ii. 197. ¹⁴ Featherman i. 432. ¹⁵ Schoolcraft iv. 50. ¹⁶ Lubbock O. C. 366. ¹⁷ Featherman i. 20. ¹⁸ *Ib.* 477. ¹⁹ *Ib.* 695. ²⁰ Spencer D. S. iii. 38. ²¹ Seeman 236. ²² Waitz iii. 207. ²³ Featherman i. 236. Tylor P. C. ii. 250. Wilson 219. ²⁴ Leonowens 147. ²⁵ Lippert K. G. ii. 292. ²⁶ *Ib.* 270.

The left eye of the victim, in the human sacrifice, was offered to the King of Hawaii. Kalakaua 46.

SEC. 136. *Gods*.—¹ Lippert G. P. i. 245 ² Spencer E. I. 628-646.

SEC. 137. *Idolatry*.—¹ Spencer P. S. 154. ² *Ib.* ³ *Ib.* 155. ⁴ *Ib.* 156. ⁵ *Ib.* ⁶ *Ib.* ⁷ *Ib.* ⁸ *Ib.* 158. ⁹ *Ib.* ¹⁰ *Ib.* ¹¹ *Ib.* Lander i. 125. ¹² Spencer P. S. 156. ¹³ Waitz vi. 370. ¹⁴ *Ib.* 342, 369. ¹⁵ Tylor P. C. ii. 157, 161. ¹⁶ Spencer D. S. vi. 47. ¹⁷ Lubbock O. C. Ch. iii.

SEC. 138. *Divine Intercourse*.—¹ Waitz vi. 679. ² *Ib.* 340. ³ Baker N. T. 129.

SEC. 139. *Worship*.—¹ Moerenhout ii. 83. ² Bourke S. D. 255. ³ Spencer D. S. vi. 52. ⁴ Waitz iii. 180. ⁵ Jones 428. ⁶ Wood i. 686. ⁷ Lubbock O. C. 315. ⁸ Waitz iii. 180. ⁹ *Ib.* 181, 209. ¹⁰ Waitz iii. 300. ¹¹ Jones 23. ¹² Spencer D. S. v. 34. ¹³ Cumming H. H. ii. 164. ¹⁴ Spencer P. S. 370. ¹⁵ Waitz vi. 385.

SEC. 140. *Priests*.—¹ Lubbock (O. C. 370) says that "without temples and sacrifices there cannot be priests," and that among the lower savages "there are no priests, properly so called." This is in harmony with his opinion previously cited that many of the lower savages have no religion, and that faith in, and fear of, spiritual beings are not sufficient to make up a religious belief. ² Waitz ii. 196. ³ Spencer P. S. 474. ⁴ Little 157. ⁵ Spencer E. I. 602, 603. ⁶ *Ib.* 606. ⁷ Waitz iii. 385. ⁸ Kohl 132. ⁹ Waitz ii. 199. ¹⁰ Spencer D. S. iii. 14. ¹¹ *Ib.* E. I. 606. ¹² Waitz iii. 373. ¹³ *Ib.* ii. 402. ¹⁴ *Ib.* vi. 387. Spencer P. S. 197, 402.

SEC. 141. *Sensitives, etc.*—¹ Tylor P. C. i. 120. Wood ii. 290. ² Tylor P. C. i. 120. ³ Wood i. 188. ⁴ Waitz vi. 372. ⁵ Spencer D. S. v. 35. ⁶ *Ib.* P. S. 131. ⁷ Tylor P. C. ii. 377, 378. Clark 155. J. G. Muller, 182. Robinson 271. ⁸ Waitz iii. 544. Seeman 330. Tschudi 189. ⁹ Spencer P. S. 125. Catlin i. 222. ¹⁰ Spencer P. S. 132. ¹¹ Kohl 106. ¹² Waitz vi. 393.

Spirit rappers among Chippeways. Kohl. 278. Among Africans. Wilson 216.

SEC. 142. *Sorcerers*.—¹ Waitz vi. 679. Kalakaua 59. ² Waitz vi. 396. Emin Pasha 206. Kalakaua 42. Tylor E. H. 129. ³ Spencer. D. T. iv. 33. Waitz iii. 118. ⁴ Wood i. 196. ⁵ Peschel 264. ⁶ Spencer D. S. iv. 34.

Sorcerers change themselves into vampires or man-eating beasts. Emin Pasha 93, 261. Tylor P. C. ii. 175.

SEC. 143. *Sacerdotal Functions*.—¹ Waitz vi. 383. ² Wood ii. 133. ³ Spencer E. I. 630. ⁴ Jarves 40. ⁵ Dodge H. G. 275. ⁶ Wilson 76. Barton G. L. i. 101.

SEC. 144. *Areoi*.—¹ Waitz vi. 363. ² *Ib.* 366.

SEC. 145. *Revenue, etc.*—¹ Spencer P. S. 374. ² 1 Sam. xxi. 6. ³ Ex. xx. 25, 26. ⁴ Jud. vi. 19, 21. ⁵ 2 Sam. vii. 4-6. ⁶ Most of this paragraph is a condensation from Spencer E. I. 626.

SEC. 146. *Taboo*.—¹ Lippert K. G. i. 119. Wood i. 406. Guppy 32. Park 174. ² Low 260. ³ Waitz vi. 361. ⁴ Powell 113. ⁵ Thomson N. Z. i. 101. ⁶ Robinson 298. ⁷ Spencer D. S. v. 19, 36. ⁸ Waitz vi. 362. ⁹ *Ib.* ¹⁰ *Ib.* 323. ¹¹ Jarves 57. Wood ii. 189. Scherzer iii. 114. Thomson N. Z. 105.

SEC. 147. *Omens, etc.*—¹Bagehot 129. Emin Pasha 96. Dodge H. G. 275. *Ib.* W. I. 135. ²Chalmers and Gill 308. ³Waitz vi. 805. ⁴Waitz vi. 393. ⁵Wood ii. 565. ⁶Waitz ii. 417. ⁷Wood i. 465.

SEC. 148. *Temples, etc.*—¹Maclean M. B. 100. ²*Ib.* 221. ³*Ib.* 54. ⁴*Ib.* 46. ⁵*Ib.* 56. ⁶*Ib.* 57. ⁷*Ib.* 58. ⁸Spencer P. S. 137. ⁹*Ib.* Emin Pasha 93. ¹⁰Spencer P. S. 137. ¹¹*Ib.* ¹²*Ib.* 373. ¹³*Ib.* 137. ¹⁴*Ib.* ¹⁵*Ib.* ¹⁶*Ib.* ¹⁷*Ib.* ¹⁸Waitz vi. 373. ¹⁹*Ib.* vi. 377. ²⁰*Ib.* ²¹*Ib.* ²²*Ib.* v. 75. ²³*Ib.* 226. ²⁴Spencer P. S. 138. ²⁵*Ib.* ²⁶*Ib.* ²⁷*Ib.* ²⁸*Ib.* ²⁹Fergusson 27.

SEC. 149. *Religious Development.*—¹Max Muller C. G. W. i. Preface.

In many passages, Max Muller (S. R. 51, 104, 106, 108, O. R. 64, N. R. 219) accepts the idea that a supernatural revelation of the main truths of religion was given to savages. But he has not made a study of savage culture, and has never been a recognized authority in reference to it. In writing of it, he has made some gross mistakes. He has asserted (N. R. 219) that all religions teach morality. Of fetishism he has said that it represents "the very lowest stage which religion can reach." Again he has written of the fetish as if it were regarded as something supernatural and entirely different from the idol which is merely the home of a spirit or divinity. As the reader has seen in the text, the fetish worshiper and the idol worshiper are alike in worshiping a spirit supposed to make its home in the material object.

It is worthy of remark that Max Muller asserts that while the supernatural has been at work in a foreign domain of which he knows little, in his own specialty, philology, all the changes have occurred under the influence of natural law. He quotes (N. R. 237) with compassion Plato's opinion "that language could not possibly have been invented by man." After asserting that language is a natural product of the human mind, and that true religion was revealed to savages and then allowed to degenerate, he tells us (*Ib.* 313) that "a truly scientific study of religion is impossible unless we know the language which forms the soil from which religion and mythology spring." Is savage religion the supernatural fruit of the natural tree, language?

The theory of a divine revelation of fundamental religious truth to savages has been accepted by many other authors, including Fichte, Schelling, Hegel, F. Schlegel, De Maistre, Gladstone, and Whateley, but no one has undertaken to give evidences and argu-

ments to sustain his opinion. The reader can consult Tylor P. C. i. 36; Flint 414, 428, 463.

SEC. 152. *Grades of Culture*.—¹Lubbock P. T. 435, 436, 550. ²Pickering 304. ³Fremont 212. ⁴Waitz i. 390.

Lubbock (P. T. 553) gives a table of the possession of bows, slings, throw-sticks, boomerangs, bolas, fishhooks, and nets by various tribes, but I see little significance in it and therefore do not copy it here. Lippert's supposition (K. G. i. 306) that the lack of the bow among the Australians, Tasmanians, and most Polyne- sians is proof that their ancestors must have migrated from their continental home, before that weapon was invented, does not harmonize well with the fact that the Andamanese have bows with- out huts, tillage or polished stone, and that the Tahitians, Hawaiians and Kaffirs with advanced savage culture, and familiar with the bow, made no use of it save as a plaything, preferring the spear in war and the chase.

SEC. 153. *Some Characteristics*.—¹Waitz i. 42. ²Lubbock P. T. 281. ³*Ib.* 359. ⁴The potato supports twice as many people to the acre as does wheat. Buckle H. C. i. notes 46 and 167. ⁵A date tree yields 360 lbs. of fruit annually, equivalent to 7,200 lbs. for an acre. Bartlett 46. One square league sustains 70,000 date palm trees. Humboldt Ch. viii. Since there are 4,438 acres in a square league, this would allow only 15 trees to an acre, leaving a distance of more than 50 feet from tree to tree, whereas 35 or 40 is sufficient for old trees in full bearing. At 35 feet apart there would be 35 trees on an acre, and at 360 lbs. to a tree, a crop of 12,600 lbs. A sago palm tree will yield 300 lbs. of sago; but this is not an annual crop. Wallace M. A. 382, Waitz v. 128. One cocoa palm tree supports several families. Scherzer i. 365. It yields a ton of nuts annually. Tennent ii. 457. ⁶Authority lost. ⁷Brigham (353) says that 1,607 square feet of rich soil in Guatemala yield 4,000 lbs. of plantain. This is equivalent to 84,000 lbs. for an acre. Tylor (M. 303) says that "according to the lowest estimate" one acre of bananas will support as many people as twenty acres of wheat. The yield of plantain to the acre in Africa is estimated by Du Chaillu (A. L. 119) at 27,000 lbs. Buckle (H. C. i. notes 46 and 167) citing Humboldt, says that in the yield of nutriment from an acre, the banana is to wheat as 133 to one. Tropical fruits contain 12 per cent. of carbon; blubber contains 65 to 80 per cent. Buckle H. C. i. note 46. ⁸Waitz vi. 64.

* For sources from which we have derived our cultivated plants see De Candolle and Hehn.

SEC. 156. *Benefits of War.*—¹Spencer P. 1. 582. The same author (*ib.* 438) says: "Neither the consolidation and reconsolidation of small groups into large ones, nor the organization of such compound and doubly compound groups, nor the concomitant development of those aids to a higher life which civilization has brought, would have been possible without intertribal and international conflicts. Social co-operation is initiated by joint defense and offense, and from the co-operation thus initiated, all kinds of co-operation have arisen. Inconceivable as have been the horrors caused by this universal antagonism, which, beginning with the chronic hostilities of small hordes, tens of thousands of years ago, has ended in the occasional vast battles of immense nations, we must nevertheless admit that, without it, the world would still have been inhabited only by men of feeble types, sheltering in caves and living on wild food."

Victor Cousin praises war as the "terrible but necessary instrument of civilization." He says (190) "the hypothesis of a condition of perpetual peace among men would be the hypothesis of absolute stagnation. * * * War is nothing save a bloody exchange of ideas; a battle is nothing but a struggle between truth and error; * * * a victory is nothing but the triumph of the truth of to-day over the truth of yesterday. * * * The frequent assertions that war is a game of chance and the fortune of battle very uncertain, is true if viewed in a narrow spirit but most false when considered upon general principles. Humanity never lost a battle. Every great victory has been achieved in the interest of civilization. * * * The conqueror is the better, and more moral than the conquered; and for that reason is the victor. If this were not true then morality and civilization would be in conflict; but that is not possible, since both are merely different phases of the same idea."

This praise of war is quoted here for the the suggestiveness, not for the correctness, of its ideas. In many cases war does not deserve to be dignified with the title of "an exchange of ideas," and a great battle does not turn in favor of civilization any more than a meeting between a highwayman and a mechanic carrying the savings of years of labor. The assertions that the cause of progress "never lost a battle," or that "every great victory has been achieved in the interest of civilization," are extremely questionable considered

separately and are entirely unnecessary in support of the main proposition that war has rendered great service to culture.

SEC. 157. *Benefits of Slavery, etc.*—¹“Abject submission of the weak to the strong, however unscrupulously enforced, has in times and places been necessary.” Spencer P. I. 436. “Subjection to despots has been largely instrumental in advancing civilization.” *Ib.* 481.

“Conservation of ethnological families, material and moral development, primitive discipline, apprenticeship of liberty, indispensable novitiate and inevitable passage from barbarism to civilized life,—these are the titles of slavery to the gratitude of mankind.”—Wallon Introduction.

SEC. 158. *Benefits of Religion.*—¹Spencer E. I. 622, 651. Lipert (K. G. i. 28.) says: “Religion gave to the laws of morality those penal sanctions without which men could not have been educated up to the lower and middle rules of ethics; and these are indispensable to the development of the higher principles and to the creation of the moral instinct.” Carpenter (501) remarks: “The religion once true may become a lie; the polity once fraught with blessing may become a curse.”

Among the ancient authors who wrote of religion as a valuable police institution, are Polybius, Strabo, Livy, Dionysius and Pausanias. See citations from them in Milman, H. L. C., ch. i. This opinion has been shared by chiefs, kings and statesmen in every age of the world. For remarks about some of the evil influences of savage religions see Waitz i. 459, 469 and Burckhardt N. 405.

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END OF VOLUME I.







